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ABSTRACT

This reports presents interview findings with education policymakers on various aspects of educational research. The sampling contained the following groups: superintendents and other local education officials; chief state school officers; state higher education executive officers; state legislators; governors' educational policy advisors; congressional staff members; and education association executive directors. Altogether, 142 interviews were conducted. The interviews covered the following aspects of educational research: (1) research priority areas from policymakers' perspectives; (2) access to and use of existing research; (3) assessment of existing research; and (4) suggestions for improving education research. Student achievement--especially achievement in reading, math, and science--and its relationship to effective instruction, curricula, programs, and policies was the highest priority for research shared by the policymakers interviewed across groups. Respondents also expressed the importance of research in teacher development and quality; assessment and accountability; educational finance; and achievement gaps. Among major policy interests, respondents cited the financing of education as their major concern. Appended are the study's methodology, interview protocol and instrument, a sample introductory letter, and counts by frequency of reading research reports. (WFA)

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Institute of Education Science Findings from Interviews with Education Policymakers.

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January 29, 2003

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EXECUTIVE SUMMARY

The Institute of Education Sciences (IES, formerly the Office of Educational Research and Improvement, or OERI) has begun an effort to gather input directly from education policymakers. Synectics for Management Decisions, Inc. (Synectics) worked with IES to plan, design, and conduct interviews with education policymakers. This report presents the interview findings and documents the project design and procedures in appendices.

The project used a purposive sampling approach to select policymakers from the following groups:

- Superintendents and other local education officials;
- Chief state school officers (CSSOs);
- State higher education executive officers (SHEEOs);
- State legislators;
- Governors' educational policy advisors (GEPAs);
- Congressional staff members (including staff members of the Senate Committee on Labor and Human Resources and the House Committee on Education and the Workforce, and educational policy specialists on the staffs of members of both houses); and
- Education association executive directors.

The interviews covered the following aspects of education research: research priority areas from policymakers' perspectives; access to and use of existing research; assessment of existing research; and suggestions for improving education research. The findings in this report may provide the Director of the Institute of Education Sciences with information he can use to "increase the relevance of [the Department of Education's] research in order to meet the needs of . . . customers" (Objective 4.2, Department of Education's Strategic Plan 2002–2007).

Findings from the interviews are summarized below. The responses to question 1, which asked respondents to name the two highest priority areas where they thought further research was most needed, are followed by the responses to question 5, which asked respondents to name other high priority issues, and, in turn, by responses to questions 2, 3, and 4.

Highest Priority Issues In Need of Further Research (Question 1)

Effective Practices, Programs, and Policies

Student improvement, especially achievement in reading, math, and science, and its relationship to effective instruction, curricula, programs, and policies was the highest priority for research shared by the policymakers interviewed across groups. The respondent groups, however, expressed their priorities differently, and often related them to diverse aspects of the education system. For example, the superintendents and other local education officials interviewed frequently discussed student learning together with instruction and curriculum research and most of them saw instruction and curriculum research as the highest priority for research. The state-level policymakers—CSSOs, SHEEOs, state legislators, and GEPAs—and the education association executive directors who were interviewed tended to address the issue in relation to teacher training, school intervention programs, and standards-based testing. The Congressional staff members interviewed, on the other hand, highlighted teacher quality and the development of a knowledge base in connection to achievement and performance.

Teacher Development and Quality

Teacher quality-related issues, including teacher preparation, recruitment, and professional development, was another high priority area widely shared by respondents. Many respondents in each policymaker group (except the SHEEOs) raised concerns about teacher quality and supply as a key issue for research. Only one SHEEO mentioned teacher education in relation to other issues.

Assessment and Accountability

Standards-based assessment and accountability was seen as a highest research priority by a large number of respondents across groups, although there were different opinions about its value. Some respondents called for studies to examine the rationale and empirical consequences of standards and assessments in connection to the achievement gap and school dropout. The issue was not mentioned by state higher education executive officers interviewed.

Education Finance

Education finance was mentioned as another highest research priority by many respondents, though from various perspectives across policymaker groups. Superintendents and local education officials and education association executive directors were keenly concerned about financial issues and their impact on achievement, class size, teacher recruitment, and competition with alternative schools. The SHEEOs interviewed were interested in studies on the affordability and quality of higher education due to changing fiscal conditions. The state legislators interviewed had broader views of school financing in relation to equity and the No Child Left Behind legislation. Congressional staff and GEPAs did not address financial issues in their interviews.

Close Achievement Gaps

Achievement gaps relating to various sociodemographic groups was another high research priority concerning many of the superintendents and other local education officials, CSSOs, and Congressional staff. A number of high priorities were proposed by only one or two policymaker groups, and these issues seemed to reflect the group's unique work scope. For example, instruction and curriculum research was seen as a highest priority by 13 out of the 30 superintendents and local education officials who were interviewed. This issue interested respondents in this group more than any other issue, but it was rarely emphasized by respondents in the other groups. Interest in research on rural-urban disparities was voiced by CSSOs.

Other High Priority Issues (Question 5)

Additional high priorities for research were proposed by respondents were far more diverse than the highest priorities they discussed. Few issues were shared across groups or even within a group.

- *Basic research issues:* The conceptual clarification of scientifically-based methodology (by a superintendent and a SHEEO), comparison of experimental design-based studies vis-à-vis other research approaches, brain science in connection with learning theories (by a CSSO and an association executive), and cross-disciplinary syntheses of research for education applications.
- *Practice-logistic problems:* School schedules and bus schedules, year-round schools, crowding in schools, and alternative schools such as online schools, voucher programs, and charter schools were mostly interesting to superintendents and local education officials.
- *Emerging issues:* Using new approaches to education research (e.g., economic theories) and examining issues such as small high schools, extending the high school senior year into junior college, attracting minorities to teaching, developing guidelines or benchmarks to determine the effectiveness of state programs, and focusing on successes of students and schools rather than disadvantages.
- *Enduring issues*: Special education, the use of technology in education, how students and their families perceive affordability and college selection, student mobility in higher education (by a SHEEO and an association executive), the world of work from the perspectives of student preparation and state and national economic developments, vocational education, arts education, science and technology education, high school and dropouts and older students, and English language learning.

Use of Education Research Resources (Question 2)

More than half of the respondents (49 out of 71) reported that they read research reports "most of the time" or "just about always," and at least a half of the respondents in each policymaker group read research reports that frequently, except for the state legislators, both of whom read these reports "only some of the time."

Most-used Sources

The following sources were fairly widely cited by all the respondents: the Internet, ERIC, national and regional professional associations, professional conferences, journals and magazines, the federal government (specifically NCES and IES). Regional education labs and other regional/state education services were valued as good research resources by the interviewed superintendents and other local education officials and by some other state-level policymakers. Internal research staff and resources were a source for most of the policymakers interviewed, except for the superintendents and other local education officials (but three respondents from large districts also had in-house research resources).

Criticism

While sharply critical of the existing education research, most respondents acknowledged the value of research to their work. Their essential criticisms included:

- *Overly theoretical and academic orientation*: This was a shared concern, but superintendents and other local education officials were particularly adamant about this being a problem.
- *Gaps in knowledge and lack of scientific rigor in studies*: State-level policymakers, Congressional staffers, and national association executives laid stress on this weakness; while some local education officials reserved judgment.
- *Political or marketing bias and contamination*: Many respondents from each policymaker group complained about this.
- *Lack of detailed information breakdowns by geographic and demographics:* Many respondents, especially superintendents and state-level policymakers were dissatisfied by the existing statistics and survey data; they said national data had limited local use.

Most respondents pointed out that lack of time to filter the available information made it difficult for them to use research; they called for research summaries that were tailored to different user groups and disseminated through a variety of channels.

Steps the Department Can Take to Improve Education Research (Question 3)

The respondents, whether at the district, state, or national level, shared strikingly similar views regarding steps the Department could take to make education research more useful, accessible, and relevant. They underscored the importance of ongoing dialogue with the Department and feeling confident that their needs and concerns were being heard by senior Department officials. A number of respondents highlighted the importance of ensuring that Department research reports were free of political bias.

Strengthen Services via Internet

These policymakers sought help in quickly identifying useful education research and communicating it to their staffs. The Internet was a preferred tool for rapid information dissemination, whether through e-mail or Web sites. They also suggested the Department simplify access to its Web pages and to ERIC and improve the indexing and searching tools for these resources.

Summary of Research

There was nearly unanimous agreement among the policymakers interviewed that summaries, highlights, and abstracts of education research were indispensable tools for education policymakers and that the Department should play a leading role in making these tools available. A number of respondents proposed that the Department provide links from report summaries to the complete research reports.

End-user Oriented Research Syntheses

A number of the education policymakers interviewed called on the Department to translate the language of academic education research into usable guidance for practical decision-making. These respondents felt it was important to keep the needs of "end users" in mind, look at issues from diverse perspectives, and address fundamental questions related to practice. These policymakers further proposed that the Department provide syntheses of research findings and assistance in resolving conflicting research evidence through meta-analyses on specific research issues. They also suggested the Department try to expedite release of its education research findings: multi-year delays in publication of NCES and other data hampered effective decision-making.

Expanding Information Dissemination and Sharing

State- and local-level policymakers particularly underscored the unique role of the Department in "aggregating research and resources" by collecting and disseminating district and state education research across the country, and called for expanded efforts in this area, as well as in facilitating information sharing among states and local agencies.

Respondents additionally called for the Department to expand its role as an information broker by providing more information on education research funded by foundations and academic and private sector research institutes.

Training in Use of Research

Superintendents underscored the need for the Department to provide training at the district level in the interpretation and use of education research.

Major Policy Interests (Question 4)

Broad Interest in Education Finance

While the respondents' individual policy interests reflected their institutional priorities, as well as their personal intellectual concerns, several issues were cited across all the groups interviewed. The financing of education, whether prekindergarten, elementary/secondary, or postsecondary, was a major concern to most groups. Many respondents noted the difficulty of choosing among multiple priorities in allocating limited funds. They were also concerned about the relationship of federal financial resources to state and local funding.

Assessing Performance

Enhancing and assessing student achievement was a recurrent concern among respondents. Respondents were concerned with developing performance measures, enabling them to better assess program effectiveness and school and college quality. Issues of teacher quality and development of educational leaders were of importance.

Education Reform, Understanding Connectivity

Policymakers were interested in education reform initiatives. They sought, as well, to establish linkages across the educational system, understand the connections between education and the world of work, and discern the impact of education on economic development. Educational technology and its role in teaching and learning attracted the interest of several respondents.

Other Areas of Concern

Access to education was important, including ensuring the affordability and availability of early childhood education. Respondents also focused on enhancing English-language learning for students for whom English was not a first language. Superintendents and other local education officials were particularly concerned with nuts and bolts questions of school operations and facilities management. Flexible funding and decentralized decision-making were important to them, as well.

Use and Quality of Research

Addressing the utility and quality of education research, respondents called for greater sharing of research information across the states, more comparative research, and greater research specificity and timeliness. While some of these policymakers found current education research of value, many others sought research more directly linked to practice or translated into clear, directly applicable guidance. While a number of respondents called for more rigorous scientifically-grounded education research, others underscored the importance of qualitative, more holistic approaches.

Gaps in Research: The respondents identified gaps in existing research, citing such areas as rural education, education for poor children, and mathematics instruction. Respondents criticized the "bandwagon" effect in research, with a number of individuals expressing concern over the politicization of research and the use of education research to fit particular special-interest agendas.

Other Research Models: Several policymakers expressed interest in the applicability to the field of education of models and perspectives from outside the field. They found research from the world of business and economics highly relevant and insightful in addressing issues of innovation and systemic change in education.

INTRODUCTION

Background

Synectics for Management Decisions, Inc. (Synectics), under the direction of the Institute of Education Sciences (IES, formerly the Office of Educational Research and Improvement, or OERI), U.S. Department of Education, conducted interviews with education policymakers in Congress, local school districts, state education agencies, and key national organizations that represent education decision makers. The project, and this report, provides the Director of the Institute of Education Sciences with information he can use to achieve the Department of Education's Strategic Plan 2002–2007 Objective 4.2, "Increase the relevance of our research in order to meet the needs of our customers."

Synectics worked with IES to plan, design, and conduct the interviews. This report presents the substantive findings from the interviews and documents the project design and procedures in appendices.

Design and Procedures

The project entailed a purposive sampling design, interview protocol development and pretests, mailing of introductory letters, telephone interviews of the selected policymakers across the country, documentation of the interviews, and writing a report.

Purposive Sampling

The target population was policymakers working in various jurisdictions, educational levels, and geographic and demographic categories. To maximize the relevance of their input, given the constraints of a limited project budget, IES decided on a purposive sample. Differing from random sampling, purposive sampling is not meant to produce quantitative information that represents a given population through statistical estimation. The largely qualitative information collected from a purposive sample may nevertheless convey policymakers' perspectives with a reasonable depth and inclusiveness.

In employing this approach, the task team worked with the IES staff to select the most influential policymaking entities, while covering different aspects of public education, including different jurisdictions, educational levels, and regional and demographic characteristics. A sample of the following groups of policymakers were included in this study (see appendix A for details of sample development):

- Superintendents and other local education officials;
- Chief state school officers (CSSOs);
- State higher education executive officers (SHEEOs);
- State legislators;
- Governors' educational policy advisors (GEPAs);
- Congressional staff members (including staff members of the Senate Committee on Labor and Human Resources and the House Committee on Education and the

Workforce, and educational policy specialists on the staffs of members of both houses); and

- Education association executive directors.

The distribution of types of policymakers in the sample is shown in table 1.

Table 1. Final sample members and completed interviews, by categories of policymakers

Policymaker group	**Number of selected respondents**	**Number of completed interviews**
TOTAL	**79**	**71**
Superintendents and other local education officials	34	30
Chief state school officers (CSSOs)	10	9
State higher education executive officers (SHEEOs)	10	10
State legislators	2	2
Governors' education policy advisors	5	4
Congressional staff members	*8	*6
Education association executive directors	10	10

* The number of selected respondents included four staff members from the House and four from the Senate; three interviews were completed with staff members from each group.

Local- and state-level policymakers were selected so that states and localities were represented across key geographic and demographic categories, including: Census region, district urban-rural locale, district enrollment size, state percent of urban population, state population size, and state math 4th grade achievement level. Information sources used included the Census Bureau's 2002 population estimation, the Common Core of Data (CCD) on district enrollment and locale, and the 2000 NAEP mathematics performance by states. See appendix table A-2 for a summary of characteristics of the selected district and states.

Substitutes were used when the sampled individual from the primary state or district was unavailable or unwilling to participate. The sample identified as respondents the top decision maker or a high-ranking staff member who led research and policy making in each selected agency.

Interview Protocol

The interview protocol was designed to be used in a telephone interview. To minimize the burden on the respondents, the protocol contained only five open-ended questions, in addition to an introduction. The five questions were as follows:

1. What, in your opinion, are the two highest priority areas in which further research is most needed?
   (a) Why is this so?

  (b) And, when you describe these topics, what level of education are you mainly concerned with?
  (c) Of the priority areas you listed, which would you rank higher?

2. When looking for information on effective educational programs or practices, do you read research studies or reports of evaluations of the programs you are interested in (a) never, (b) only some of the time, (c) most of the time, or (d) just about always?
   (a) When you have used research information, how have you obtained it?
   (b) What would make it easier for you to use research information on a regular basis?

3. What could the U.S. Department of Education do to make education research more useful, more accessible, or relevant to your work?

4. In terms of your own work in education, what are your major policy interests?
   (a) Has the research you've used been useful to you in addressing your specific areas of interest or providing fruitful guidance?
   (b) Could you tell me about your sense of the research you've used, both in terms of the amount of existing research and the quality of that research?

5. Finally, on reflection, are there any other high priority issues, areas, or themes in American education in which you would like to see more, better, or a different type of research?

See appendix B for the complete interview protocol. The protocol was developed through collaboration between Synectics and the IES staff. It was twice pretested in the process.

Pretests

To ensure that both the interview protocol and the communications procedure were appropriate for gathering adequate information, Synectics conducted two pretests. A total of seven state policymakers, association directors, and Congressional staff were interviewed during the first test. Results of the first test were used to revise the interview protocol. The revised protocol was again tested with five policymakers, including one Congressional staff member, one state legislator, one association director, and two local district superintendents. The policymakers in the pretests were chosen from entities that were not included in the study sample. The pretest results were documented and used to revise the protocol and the contact procedure.

Interview Procedures

A letter was drafted to inform each of the selected policymakers about the purpose, content, and procedure of the planned interview. The letter also advised respondents that their participation was voluntary and their identification and responses were to be kept confidential. Upon approval and sign-off by the Director of the Institute of Education Sciences, the letter was sent to the selected decision makers a week before the telephone calls began. (See appendix C for a copy of the letter.) The letters were faxed or e-mailed to respondents' offices upon request.

Two Synectics staff members who were familiar with the current education policy issues conducted all the interviews. An interview typically followed numerous initial calls and e-mails to make the arrangement, and lasted from 6 to 48 minutes, with an average of about 20 minutes to complete.

Twenty sampled individuals designated other senior staff to respond (*designees*). Four sampled individuals declined to participate, requiring substitutes from similar entities to be selected (*substitutes*). Eight selected sampled members were either not reached or could not be scheduled for an interview within the study timeframe. The overall response rate was 90 percent. (See appendix table A-4 for detailed counts of respondents by policymaker groups.) The formal interviews began on October 4, 2002, and were completed by November 22.

Documentation

For each respondent, the following information was recorded in addition to their responses: the respondent's name, official title, affiliation, date and time of the interview, and the interviewer's name. For interviews completed by designees or substitutes, the file also recorded the reason the sampled individual was replaced and the substitute's official responsibilities relevant to the project.

Coding of Responses to Question 1 (Highest Research Priorities)

Asked to specify and rank *two* highest priority areas for research, some respondents proposed more than two issues or only one issue and many emphasized the equal importance and close association of the specified issues. The issues frequently overlapped in respondents' descriptions. For example, a respondent may have talked about teacher training for early childhood programs in reading and math or about high school dropout among at-risk students with low achievement. To organize the information gathered from the interviews, the responses were grouped into broad policy areas. Thus, the issues are sometimes presented together as the highest priorities without coding or specifying the ranking made by respondents. See appendix A for the approach to identifying and categorizing the high priority issues.

Limitations

Information generated from the purposive sample cannot be considered representative of education policymakers nationwide. Furthermore, a short telephone call to assess broad areas in many complicated aspects of education research restricts the scope and depth of the conversations. The findings in this report should serve as an illustrative source for federal research managers' deliberation in forming new research priorities.

Format of Report

The remainder of the report is organized in seven sections corresponding to the seven groups of education policymakers interviewed in this study. Each section contains a description of the findings organized by the five questions asked in the interview. The responses to question 1, which asked respondents to name the two highest priority areas where they thought further research was most needed, are followed by the responses to question 5, which asked respondents to name other high priority issues. The other questions appear in numerical order. In addition, appendix A contains methodological details of the study, appendix B contains the interview protocol, appendix C contains the introductory letter sent to each of the sampled individuals, and appendix D contains a table showing the frequency counts for reading research reports, by policymaker group.

SUPERINTENDENTS AND OTHER LOCAL EDUCATION OFFICIALS

Superintendents and other local education officials[1] concerned with such areas as planning, research and evaluation, and assessment comprised the largest group of educational decision makers in the interviews. In interviews, they presented highly diverse and sometimes conflicting views regarding education research. Their perceived research priorities reflected distinct or even rival local interests, needs, and perspectives. The extent to which they accessed and utilized research information varied substantially. Nevertheless, some common themes did emerge in the analysis and may serve as indicators for readjusting the national research agenda. Even the dissidence in the group is useful in revealing the complex reality of education practice and education research.

Highest Priority Issues in Need of Further Research (Question 1)

Local education specialists proposed the following as the highest priority issues in need of further research: curriculum and instruction research (16 respondents), assessment and accountability (10 respondents), achievement gaps (11 respondents), early childhood and elementary programs (4 respondents), high school dropout rates (5 respondents), teacher training and teacher quality (5 respondents), equitable and flexible funding (4 respondents), parental involvement and community support (3 respondents), leadership and school management (2 respondents), and school safety (2 respondents). See appendix A for the approach to identifying and categorizing the high priority issues.

Curriculum and Instruction Research

While 16 respondents indicated that research was needed to help identify and retool effective instruction and curricula, the emphasis differed by educational level and across localities. Some superintendents were concerned about elementary and middle school (K–5 or K–8 level) instruction, even as high schools in their districts were performing well in key measures (achievement, SAT scoring, and graduation rates), and wanted a focus on earlier schooling to prepare at-risk students for learning in high school. Other respondents saw high school performance declining, especially growing high school dropout rates that posed a major challenge in their jurisdictions.

Using Technology Effectively

In the area of instruction research, respondents were interested in research on technology in education. They wanted more research to inform them how to use technology—particularly the Internet—more effectively to improve classroom teaching and learning. They also asked for research that would help them apply technology to such areas as personal communication, instructional strategies, teacher quality and training, family problems, and poverty. They felt research could help practitioners to integrate technology effectively in curricula and instruction on reading, especially early-age reading.

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[1] We will refer to the group as local education officials, but most of the respondents were superintendents.

Some respondents asked for research on effective instruction and programs to help them improve student achievement and school accountability. A superintendent in a large state with a rigorous statewide standard test saw assessment and accountability as the number one issue that required research:

> "We have to compete with other districts in improving student achievement. This is the key to accountability. We want our high school graduates to complete [school] with good grades and go to college. We need good studies to show us effective ways to do it."

Sustaining Improvement

Two local education officials highlighted the importance of seeking sustained effects in curricular and instruction improvement. Respondents observed that effective programs at the elementary level would not work well in high schools: ninth graders often lacked basic skills and were ill prepared for advanced curriculum in secondary education. These respondents felt evaluation of recent innovative programs in areas known as "secondary literacy" and "freshman academy" would be valuable in addressing the problem.

Respondents asked for studies to identify proven effective strategies for teachers to use in classroom instruction and for administrators to develop service programs. A superintendent expressed appreciation for the Reading First initiative:

> "Reading is indeed a very good area to focus research, resources, and efforts. Grants for reading instruction programs are well spent. A good direction, with accountability measures attached to it. I'd like to see more such programs in other subject areas like math and science."

Concerns about achievement gaps among specific student groups voiced by respondents were actually tied to curriculum and instruction research. Local decision makers interviewed wanted to have effective strategies proven by research—for developing either academic or service programs—to address the needs of different student groups at different education levels, as shown in four sections below.

Early Childhood and Elementary Programs

Four local education official respondents cited early childhood—including prekindergarten—education as a high priority for research. They saw early childhood education as crucial for later learning; a great deal of money had been spent on programs, yet it was still not clear how well they worked. These respondents needed to better understand what works through research that would help identify developmentally appropriate and educationally relevant programs. Echoing the federal initiatives, four respondents advocated extensive research on acquiring reading skills at an early age, from preschool through grade 3, as early reading was critical for virtually all other subjects.

Brain Development Research

In connection to early learning, three respondents pointed out that brain development research was very important and deserved strong support. Recent developments in brain research have shown teachers better ways to teach children by learning about the brain processes. They believed further brain research could help teachers understand individual students' learning styles and progressive patterns, and accordingly develop appropriate strategies to meet their unique needs.

Assessment and Accountability

Local education official respondents were divided in regard to the initiatives of standards-based assessment and accountability. Of the 10 who raised this issue, six expressed strong support, while three remained skeptical. Supporters viewed student achievement and assessment in core subjects as the highest priority and asked for extensive and in-depth studies in the area.

Early Grade Reading Benefits

More than half (16) of the local education official respondents agreed that the No Child Left Behind legislation provided a good principle for education reform and that the focus on early grade reading was the right approach to address widespread mediocre performance in elementary and secondary schools. They affirmed that reading was the key to learning in many academic subjects and that mastery of reading at an early age would benefit students tremendously in subsequent schooling.

Need for Research on Standards

Citing assessment research as a high priority, a skeptic among the local education official respondents asked for research to examine the very standards in relating to achievement gaps, arguing that the new state standards themselves need to be critically assessed, linking them to achievement gaps. As this superintendent put it:

> "Good standards and testing should work to help reduce the gaps, not widen them."

Two respondents were not convinced by current research evidence that standards-based testing actually helped improve student learning. They were not convinced about the means by which testing contributes to better student learning. A district head worried:

> "How do they [assessments] help? Tests take a lot of time and energy from teachers and students, but we don't know how they can help learning."

Questions on Assessment

One superintendent thought that research was needed to show how to "align classroom practice with state and national expectations of student achievement." (This person referred to the No Child Left Behind Act and education reform in the respondent's own state.) One question stemmed from the diverse curricula and instructional strategies in practice in any given district and across the country:

> "How can you teach them using different strategies in different programs, but expect them to perform well with a single assessment?"

A rural superintendent did not believe a test could provide a full picture of student learning and questioned the wisdom of making all key decisions based on "the results of the one test per year." One superintendent pointed out that because of the very small number of students in his district, student achievement fluctuated dramatically from year to year. Assessment statistics from his district may thus misrepresent the progress and the instruction programs when compared with larger districts.

Achievement Gaps

The issue of achievement gaps, proposed by 11 respondents, was perceived as closely related to assessments and standards. It was recognized that there were wide gaps in achievement in students across race/ethnicity, sex, income levels, geographic areas, and disability status. A large urban district's research and planning director warned:

> "We know their [underperformers] problems pretty well, but we need research to tell us ways to reduce gaps and improve learning. . . . Kids are vulnerable; they are fundamentally struggling in those urban schools and neighborhoods. Research is needed to inform us about what to do. We are at meetings and when questions are raised about what services are needed to help those high-risk children, people just look at each other. . . . The problem is worsening to a national crisis."

On performance gaps, one superintendent strongly disagreed with the new initiatives:

> "You cannot just say 'No Child Left Behind' and disregard various demographics and local conditions. We've lost a lot of funding, especially funding for professional development after the new policy started. We should integrate programs to work with all the student populations: minorities, immigrants, gifted and talented kids, and kids with disabilities. People in Washington are fooling around with ideas and know nothing about what's really happening in school."

This respondent urged government to fund studies about how federal money had been spent and what impact the spending had on different groups.

Poverty and Achievement Gaps

Poverty, especially persistent poverty across generations and its impact on learning, was of grave concern to four local education official respondents. They believed deeper research was needed to identify strategies for closing the gap. Two respondents wanted more information on "methods of proven effectiveness" to improve achievement in urban schools for poor children. Often poverty goes hand in hand with other problems. As a superintendent described her district:

> ". . . 80 percent of children having free lunch and over 50 percent of families under the poverty level. . . . We have a high percentage of Hispanic immigrant children in school."

A superintendent working in a relatively affluent community disapproved of the federal government's key initiatives:

> "We think inclusiveness should be the basis of public education. The No Child Left Behind law is changing that. It is excluding a lot of different people while saying it helps disadvantaged children. We want to see integration of funding for programs to serve diverse student populations."

This respondent wanted research that would examine carefully the outcomes for both underprivileged and gifted/talented children as a result of the new funding formula under the law.

Reverse Gender Gap

A reverse gender gap concerned a superintendent who was also an active researcher:

> "We see girls are doing better than boys. It's as if the old policy intended to eliminate disadvantages for females has been overdone. The research question is how can we work to make sure boys can catch up and reduce the gender gap?"

Language Gap

Three respondents saw learning English in bilingual education and ESL programs as another important issue related to research on achievement gaps. A respondent from a large urban district said:

> "We have a large portion of immigrant populations in [our district]. And this comes to the No Child Left Behind legislation. What programs and services do we need to effectively help these kids and to close the achievement gaps?"

Geographic-related Gaps

Geographic-related achievement gaps were another concern combined with poverty and other risk factors. One respondent stressed:

> "Urban areas where students and their families experience high poverty and high mobility are a major challenge. What kind of programs work effectively to address their needs?"

Achievement Gaps Relating to Disabilities

Two respondents also saw a necessity for more research on achievement gaps relating to disabilities. Students with learning, physical, and emotional disabilities were seen to lag behind continuously. These respondents desired more studies in special education and other service programs for kids with learning disabilities. A superintendent who claimed to see an increase of children with disabilities said he needed more information to address the issue. A broader issue for study was emotional and behavioral aspects of learning. Another respondent pointed out that relative to cognitive research, studies on children's emotional and behavioral development were inadequate.

High School Dropout Rates

The recent rise in high school dropout rates drew renewed attention from five respondents, who listed the issue as a high priority for study. One observed:

> "High school completion is getting worse to the extent of a deep crisis. Dropout from high schools is especially bad in urban high schools. National statistics show only a slight increase in recent dropout rates, but in [my area], it is a major crisis. . . . And there is no national consensus on this, no agreement on the situation, or on what to do about it!"

Researching the Causes

A respondent in a major urban district was alarmed by the drastic increase in high school dropout rates and was not sure about the cause of it. Asking for research on the issue, she speculated:

> "It may have something to do with the increasingly higher and higher standards. Students that have basic skills problems, with poor backgrounds, just cannot catch up with the rising standards and they just cannot graduate. Here we have kids who work very hard but still need two more years to graduate from high school. Secondary literacy is a major issue here. Many kids got into high school but still cannot read, cannot do math. They are 14, 15, 16, and 17 years old but cannot read. . . . There are many problems that require research to answer."

To illustrate how research could help address the dropout problem, a superintendent reported his coping strategy informed by research. Following a successful program found in the literature, his district started a project called "freshman academy" to target at-risk students in the ninth grade, with combined services and instructional programs. He said it had helped stabilize dropout rates in the district.

Teacher Training and Teacher Quality

Five respondents agreed that teacher quality and supply should be an important research area, but the respondents had different emphases in research priorities. One believed alternative teacher certification was a promising approach to address the teacher shortage; another doubted its value as a long-term solution. He believed research should examine how "fast track" teacher recruitment and training programs work, identify the effect of these strategies in reducing immediate shortages, and compare them with the graduate and undergraduate programs in teacher colleges. Generally, these respondents felt they needed information to identify the kinds of teaching skills required for improving student performance and provide a combined understanding of teaching and learning.

Equitable and Flexible Funding

Four local education officials cited school funding and fiscal policy research as a priority area. They found that many complicated, high-stakes issues in this area had not been adequately addressed. Two of them asked for immediate research to assess the impact of the federal government's allocation of funding on local schools' administration, instruction, and student performance.

Two superintendents believed rigid control of federal funding on local operations needed to be examined in light of the vast changes in federal resource allocation. A respondent recalled that when one of his Title 1 schools substantially improved, he was not able to use these funds to help another school that desperately needed support.

Three respondents were unhappy about school finance research. These respondents did not see many problems practically solved or even conceptually clarified. Perennial issues such as per pupil spending had never been clear to them, and they were especially not clear about how such financial measures related to student learning and performance.

Parental Involvement and Community Support

The School Choice movement has exerted pressure on public school administrators and teachers, according to three respondents. Many were "restless with the choices," as a superintendent phrased it. Another respondent perceived it as a survival struggle for public schools to gain parents and community support. These respondents wanted research to find better ways to involve parents in the system, saying that parents were leaving public schools for home schooling, charter schools, vouchers, and private schools. A superintendent urged researchers to examine a school collaborative culture that allows all stakeholders to work together, creating synergy through shared decision-making.

Leadership and School Management

Confronted by bewildering changes and reforms pressed by various stakeholders, two respondents raised a wide array of issues under the rubric of leadership research. This included administrator (principals and superintendents) quality, training, coaching, and performance measures tied to student achievement. One also called for "implementation studies" that showed efficient and effective ways to implement new programs.

A superintendent was concerned about relationships with school boards and teachers' unions. Under the "huge impacts of unions on what we do," he explained, local school managers needed comprehensive studies to sort out constructive and productive ways to work with teachers, board members, and other stakeholders. He felt research on the impact of strikes and teacher contracts on student learning was also needed, especially in low-performing communities.

One respondent noted that, in an era dedicated to small class sizes, some rural districts were facing serious problems as a result of low enrollment. He explained that student out-migration and local communities' resistance to school consolidation were resulting in very small schools in rural areas. With severely limited resources, rural high school were offering substandard curricula and struggling with aging facilities. He felt studies were needed to identify effective policies and programs to cope with the problem.

School Safety

School safety and violence continued to be a major issue for two respondents, who called for research to study prevention methods as well as to assess the extent of the problem and costs related to it. A superintendent in a Southern district described the problem as acute, seriously concerning parents and staff, and including such problems as children being abducted, domestic violence, and illegal entry of school buildings.

Other High Priority Issues (Question 5)

The broad range of respondents' research priority issues, other than those presented above, included:

- A clear definition of "scientifically-based methodology," a concept that dominated the No Child Left Behind legislation;
- School schedules and double bus schedules;

- Year-round schools to help disadvantaged kids and improve achievement overall;
- The impact of school crowding and ways to handle it; and
- Alternative schools (e.g., online schools, voucher programs, charter schools, private schools) and evidence showing that those schools work better and are worth public funding.

Use of Education Research Resources (Question 2)

Respondents' use of and access to research varied widely and was highly personal, depending largely on their organization size and resources, as well as their own professional networks and communication styles.

Obtaining Research Information

An overwhelming majority (29 out of 30) of the superintendents interviewed indicated that they read reports of research studies and program evaluations at least occasionally. A large majority (24) of respondents claimed they read research reports "most of the time" or "just about always." Heads of large districts were less likely to read full-length research reports, largely because they had in-house staff to provide selected information to them. Only one respondent, a veteran superintendent, said he did not read research reports as he found research useless, and he made decisions largely based on his judgments and experience. (See appendix table D-1 for the numbers of respondents who indicated different levels of frequency in reading research reports.)

Internet and ERIC

Virtually all respondents used the Internet as a research information source. They either searched the Web for relevant information, or participated in e-mail lists to receive information regularly. They also shared information with colleagues through e-mails. The superintendent of a Southern district told a story about an SAT preparation program on the Web that helped the district attain the average level of the state SAT test.

ERIC, on the Internet or on CD-ROM, was mentioned by eight respondents as a source for research information. With its clearinghouse division of labor and specialization in different education subfields, these respondents felt ERIC provided reliable abstracts of ongoing research literature for local practitioners. The system and its databases were widely accessible via the Internet. Respondents also found ERIC's literature syntheses, known as ERIC digests, helpful in keeping up with the fields. Two respondents found ERIC less useful, noting the lack of full text for all the documents it references.

Extensive Personal Communication

More than half of the local education officials interviewed relied heavily on personal communication to receive information on current developments and research in the field. In addition to locating information via the Internet, they used their personal professional networks to filter important information, dubbed "either by Internet or by happy coincidence" or "word-of-mouth." They interacted closely with their colleagues, both in their own districts and elsewhere. One superintendent complimented the principals in his district: "They are very well informed and we share research information, pretty often through e-mail."

These respondents were very people-oriented. Personal networking seemed a main channel for this group to obtain and share research and new program information. As they described during their interviews, they had the capability to and enjoyed building relationships with colleagues, staff, consultants, and conference speakers to access updated information useful for their professional work. They named these people as friends and valued them as personal resources.

Professional Organizations and Conferences

National professional associations were a strong source of information for 12 of the local education officials interviewed. The American Association of School Administrators (AASA) was the single most frequently cited information source for the respondents. The Association for Supervision and Curriculum Development (ASCD) was another source broadly used by the group (eight respondents). The American Educational Research Association (AERA) was also mentioned as an organization that produces research products and information (three respondents). Regional professional organizations were another important resource for five respondents.

Nine local education officials reported attending professional conferences to share information with colleagues. Conferences, particularly regional conferences, were a valued channel for these school administrators to receive and absorb research information that was immediately relevant to their own districts. Two respondents tended to go to selected conferences to network and communicate with colleagues and researchers working in places similar to their own. A superintendent of a large Southern district regularly attended a small number of conferences and talked directly with speakers and implemented an improved high school schedule based on information received.

Federal Government Sources

Five superintendents praised the National Reading Panel's report as a strong and applicable piece of research work. As a respondent pointed out:

> "Locally we don't have the resources to do extensive research like the federal government has done. So it helps to see such reading research come out, really helping teaching and learning."

Fourteen respondents reported using the Department of Education's research resources. Six said they had received documents from or had searched IES Web sites, and more than half of the respondents were aware of NCES statistical products. Two of those said that they appreciated the value of federal publications in offering a national perspective. However, at least four respondents criticized that national data and reports typically did not have direct application for local districts. A research and assessment director at a large Western urban district said:

> "NCES statistics are very important for looking at schools nationwide, but we found them not directly relevant to our own situations. And I don't think we receive a lot of [IES] reports either, for the same reason that they probably are not directly helpful to our work."

Journals and Magazines

Respondents mentioned various professional journals and education-related magazines as a source for research and new programs, including *Education Week*, *Phi Delta Kappa*, *Educational Leadership*, *Harvard Education Review*, *Great City Schools*, and *Journal of Staff Development*. According to two respondents, *Ed Week*, with its electronic version, did a very good job in synthesizing timely information. Periodicals issued in a regional or state scope were also cited as good sources.

Regional Educational Laboratories and Other Service Agencies

Regional educational labs were cited by five respondents as helpful sources. With their specialties and regional locations, the labs served practitioners significantly, as reported by superintendents. A Regional Education Service Agency (RESA) in Georgia and the Board of Cooperative Education Services (BOCES), regional educational institutions in New York, were cited as examples of state/regional services where districts purchased services in curriculum development, school finance, and legal consultation.

Internal Research and Information Services

More than 10 local education officials described their internal communication on new programs and research as a regular and valuable way to keep staff up-to-date on research. A Northeastern local school agency held monthly District Instruction Conferences to share information with teachers, psychologists, and administrators, where researchers and writers were sometimes invited to present their work, as well. Creating a "professional learning community" was one of the major efforts of the district.

Respondents from two large districts had their own research and evaluation capacity, but such functions were typically geared toward internal assessments, rather than exploring new developments from outside sources. For example, this is how a superintendent from the Midwest described his district's project:

> "We designed our own assessment, in great detail, to figure out specific skills in reading that required more efforts, and communicated these needs to textbook publishers and asked them to make changes and additions."

The respondent agreed that local research like this is unique: "We have our own hypotheses and collect data to confirm them."

A large urban district in a Western state also ran ambitious research projects. Based on a systematic literature review, staff there conducted analysis of data from a 5-year evaluation program of 100–150 classrooms. They linked classroom observation data with student performance outcomes to examine key factors in instruction that affected learning and achievement.

Three local education officials were very well informed about current research and developments. They maintained close ties to universities and research organizations, serving on dissertation committees or as writers/editors of professional journals. Well connected and active in research circles at state, regional, or national levels, such local policymakers might contribute a great deal of insight about setting up new research priorities.

Facilitating Use of Research

While almost all respondents were strong critics of existing education research, 20 out of 30 local education officials acknowledged that research helped them. Responding to the question on whether research had been useful, one superintendent said:

> "Absolutely. For example, the *Teaching Gap* (James Stigler and James Hiebart, 1999) summarizes videos created during the TIMSS study that had brilliant observations on planning techniques in Japan. We've used this as a model toward which we're moving gently . . . toward more collaborative planning. Research let us sort out the effective methods we ought to copy."

Impractical Orientation

Many respondents (23) criticized existing research for its overly theoretical and academic orientation. Finding it hard to see the relevance and applicability in available research evidence, a superintendent argued:

> "Assessments, brain science research, and demographic studies of education cannot give teachers concrete ideas about teaching. Research should draw direct implications for practice and have direct connection to classroom activities."

A respondent who was also a faculty member at a major research university analyzed the situation as follows:

> "A basic problem is that researchers do not respect practitioners and practitioners do not respect researchers. Most researchers do not intend to do research to inform the practice; they have their own interests and their own questions. And that's a problem! We need far more interaction between researchers and practitioners. Researchers must take the practitioners' perspectives and raise questions from the practitioners' standpoint. The federal government should facilitate the interaction. . . . We need ongoing interaction and collaboration between researchers and policymakers and teachers . . . sitting together to share information and thoughts in a ongoing basis."

Problems in Academic Research

From some practitioners' points of view, academic research in education is out of touch, self-serving, and useless in classroom teaching and program decision making. A veteran superintendent in a Western state summarized:

> "There may be less than one percent of the existing research that's really meaningful to teachers. Much is for researchers, for getting funding, for career advancement, or for advocacy. . . . I don't want theories. Teachers need strategies, practices. Give them things that can help teaching and learning, things that can help kids."

A respondent suggested that university researchers "choose their topics after dialogue with practitioners in their field." In his area, major universities should "convene a sort of symposium with 100 public school educators and 20 to 30 university professors and talk about what matters." There was a school-university partnership in place in Chicago, working to bridge academic researchers with schools, reported one respondent.

Limits of National Data and Research

Five respondents strongly believed education and schooling is by nature contextual and therefore research must run in local settings. A long-time local education official observed:

> "In general, national research is limited [in its value for practitioners]. You deal with what you are, where you are. We have unique problems that national research probably cannot help. National data may not be exactly what we want."

Another stated:

> "One size fits all is not right. Each state has its own problems. Standardization would not work with all kids. Individual kids have different needs, different approaches. We know Europeans and Japanese have their national standards, but they have very different conditions, and they are much smaller and less complicated systems. Research should pay more attention to individual needs than standards."

A rural district local education official said, "What works in New York doesn't necessarily translate to what works well in rural southeast Idaho." And an urban district planning and research director asserted:

> ". . . you cannot simply take a structure from a school where it worked to your own place and hope it works the same way. Mostly such things work only in a local setting, be it a teaching method or a school organization. You need to understand your own issues and the ideas underlying other people's strategies."

A respondent felt that research sometimes came to conclusions that are seemingly sensible yet not practically workable:

> "Small class size is good for learning. We know that. But it requires two things: more classrooms and hiring more qualified teachers. We are trying to reduce our class size to 18 in 4 years; but we need more research to tell me how I can fund the effort, especially in schools with concentrated poor and minority students."

Political Influences on Research

Three respondents expressed mistrust of (and disappointment in) existing research that was excessively influenced by politics. A Southwestern superintendent said:

> "A lot of statistics are just for liars. . . . Research is not for selling something. A lot of these days research is for selling a product."

Another said:

> "I've been in education for 35 years. Honestly, nobody really knows what's going on in the area. Everything keeps changing. Today, you read reports about this and this, next day you read reports about just the opposite. There is no consistency. That's frustrating. Education research is

> not a science, not scientific. It is not objective. It's politically driven. For example, in reading, we heard a lot about whole language learning, how great it was, just couple of years ago. Now we are told that it does not work; it's phonic-based reading that works. I don't know what really works."

Two other respondents argued that research operated by universities, rather than by government, should be the mainstay. Concerned that research conducted by universities had been cut in recent years, one respondent believed it was time to renew support for university-based research in today's context of scientifically-based research. Another criticized research conducted by companies or politically-involved organizations that have vested economic or political interests in what they are studying:

> "Lumping things together with national statistics to express a single one national point of view is an example of political-driven research."

A superintendent called for bias-free research, saying that research must be data driven, rather than driven by some political agenda, and that studies should cover all aspects of performance, positive and negative.

Lack of Scientific Rigor

Eight local education officials said rigorous and in-depth studies were needed to understand the causes of school success. Some suggested using case studies that examine accountability and performance by observing in detail specific features and conditions of programs. Others disliked qualitative approaches, saying it was difficult to replicate the results, wary that without consistent and rigorous quantitative measures, accountability might be undermined.

Disappointed with the poor and inconsistent quality of existing education research, a superintendent who actively participated in research and publishing pointed out a fundamental weakness of the existing education research:

> ". . . there are a lot of opinions, ideas, and thoughts, rather than empirical studies in the literature. I believe there should be more rigorous research with hard, quantitative data. It is hard to be sure about qualitative findings."

Variable Quality of Research

One respondent observed:

> "A lot of good research and a lot of bad research. Some research journals give you really good results. Some do not. You see papers presenting findings without specifying procedures or limits of data collected. Educators are typically not good research consumers. They tend to take research for granted, as if all research findings are credible and can be used in practice. They don't have good judgments about research methodology."

Reserving Judgment

Five local education officials were reluctant to make judgments on the amount and quality of the existing research, saying they were not in a position to do so. One superintendent said:

> "I'm a practitioner, not a researcher. I cannot say much about research quality. It goes from ridiculous to sublime. I simply use common sense to decide whether a piece of research makes sense."

Declining to assess the overall quality of the existing research, a superintendent said:

> "I tend to assume that research published is good, [that] quality issues are taken care of. I tend to use research with confidence. There are areas where research is not adequate, and more efforts are needed, of course."

A new superintendent explained that she had little time to keep up with research, even less to filter out valid pieces. She urged the federal government to support and enforce more rigorous peer review processes before releasing research:

> "I want to be sure that the studies I read are not isolated work and are substantiated by other researchers, so I can rely on them."

Steps the Department Can Take to Improve Education Research (Question 3)

Even respondents who expressed frustration and disappointment proposed constructive strategies to improve the relevance and utility of education research. The group's agreement underlying these recommendations contrasted with its diverse views on research priorities.

Shorter is Better: Repackaging for Practitioners

An overwhelming majority of respondents (27) recommended succinct and jargon-free representation of research results for local education research consumers. They emphasized that summaries, highlights, and abstracts were the most effective way to disseminate updated research information to practitioners. One said:

> "Time is the problem, accessibility is not a problem. There is probably too much information out there but you just don't have time to sort it out."

Another said,

> "No one can go through a report longer than 40 pages; and the best is a two-page five-bullet executive summary."

They generally felt regular dissemination of research highlights through e-mail listing or hardcopy publishing would work well, and suggested the Web site should provide links from summaries to the full-length reports for people who were interested in quickly locating the original texts and data.

"Academic researchers cannot write to the general public," a practitioner-researcher respondent said. She called for special efforts to transform academic research into useful knowledge for practitioners by thoughtfully representing the information, simplifying the language, perhaps even putting questions in different ways so that policymakers and teachers could make the connection to their work.

Organization and Search Abilities

Some respondents voiced a demand for better search and indexing systems on familiar information services such as ERIC and government Web services that have become popular in recent years. Four respondents expressed dissatisfaction with the available search features and the many layers of grouping information in the Department's Web site. They would prefer materials organized by topics or categories that were relevant and compatible to practitioners' concerns and approaches.

Believing that the information was "out there," but not handily sorted by practitioners' needs, they suggested that the Department compile various regular mailing lists to notify different research consumer groups (principals, assessment directors, teachers, etc.) by topic when new research results were released. The mailing list recipients could then read the listed abstracts and download the complete text as needed. They urged categorizing information in ways that accommodated different groups' search habits and practical needs so people could quickly identify the information they needed.

Research Synthesis and Integration

A large number of respondents (16) complained that current research often reported conflicting or inconsistent findings, which was of little use and created much confusion and mistrust by practitioners in the field: synthesis and integration of major research findings was needed. A superintendent urged:

> "We need more meta-analyses. Individual studies often are not conclusive and have conflicting evidence sometimes. Meta-analyses allow us to have an overview of the findings in a particular area with integrated findings."

Secondary Analysis

A superintendent argued that more resources should be allocated for secondary analysis and reconciliation of the existing research evidence: "There is more value from interpretation of research than original research." He would like to see the Department do a good job in this and spend more resources to conduct research synthesis work. Another local education official suggested that the work be done by experts who were really familiar with both sides—research and practice in schools and classrooms:

> "Research needs to combine pieces of information on assessment, standardized curriculum, etc. into workable ideas for us to implement into programs. We in the field cannot put all those pieces of evidence together in a successful model. Researchers should do that, make information meaningful to teachers, not just to researchers themselves."

Facilitating Regional and Local Research and Information Sharing

There was a consensus among respondents that government could not do everything. Regional and local studies and program evaluations were seen as key to assuring practical utility of research. Privately supported research, typically concentrated in local or regional schools, was also seen as critical for local application.

Local District Projects

Local districts were conducting research evaluation projects. As described by two local education officials in large districts, research and evaluation projects with broad scope and high methodological rigor were underway. They were eager to share the results and hoped to get some federal support to expand and "add value" to such efforts. One of these respondents urged the federal government:

> "Fund more basic policy analyses at the local level. Do ongoing data collection at local schools. Data on dropouts, special education, reading, etc. Local schools don't have resources to do such things. New support from government is needed to conduct ongoing information collection, to build local capacities for continued research at pre-K and K–12 levels."

Internet Distribution

One respondent saw it as possible and desirable that

> ". . . federal agencies systematically locate and collect updated information from state and local policy research and program evaluations and distribute the information in summaries widely through the Internet. That way, a lot of local research information would become useful to many people."

Networking and Partnerships

A superintendent suggested the federal government could help facilitate local and regional interaction and networking in sharing research information by ". . . giving contacts and sites across the U.S. where things are happening, so we can network."

There were working examples of such networking. In a large Midwest district, policymakers could call local research agencies for immediate information and advice in a local school-university partnership. The respondent from this district advocated that every school should have research support from credible research agencies in some form of research-practitioner partnership.

Reaching Research Consumers

Few believed that the federal government would be able to directly reach research consumers at local levels, so that it might be necessary to make research information available through national or regional professional organizations of practitioners, and/or state departments of education. State agencies were also seen as helpful in information dissemination. For example, the Texas Education Agency Web site was said to be a very good source for information, with a great deal of data on districts. As one respondent put it:

> "Funnel through these organizations. They can do a much better job in identifying useful information and providing relevant stuff to members than the government."

Private Sector Approach

The private sector's approach to education reform was highly valued by local education leaders whose jurisdictions benefited from such programs. Private foundations provided funding and innovative programs as models for government-sponsored research programs. The most prominent case was the Albertson Foundation, praised by a number of respondents. It provided money to schools to support innovative programs focusing on student learning and combining program implementation and administrator coaching with research evaluation. A superintendent with a 30-year career described the Albertson's Creating High Performance Schools as "a breath of life," saying that he saw "more change in the past 3 years [under the Albertson Foundation initiative] in schools than in the past 200." Another respondent recommended that the Department's Web site publish synopses of IES-funded research and nongovernment funded research, with links to the original sources and researchers.

A deputy superintendent urged that the IES Web site should go beyond the role of a resource for federal or national research information, be used more effectively to disseminate locally-based research and program information, and facilitate communication among local programs and people across states and regions. Putting local content on an accessible Web site could encourage widespread sharing of potentially rich program information among practitioners.

Strengthen Peer Review and Quality Monitoring

Some respondents called on the Department to play the role of research monitor and reconcile results. Four respondents were wary of unreliable or erroneous research information, and felt vulnerable about being misled simply because they had no research training and often had no time or resources to filter the literature for valid findings. A superintendent in the West did not believe more research was needed, rather, "better, relevant things." She cited the Head Start program study released years ago as very good research. Another respondent commented:

> "There are competing research findings. . . . There are different camps. There is a need for sifting through the data, . . . need someone to sort through it all. . . . Develop a product and we'll buy it."

He proposed the federal government play this role. A third respondent suggested that a safeguard for local people to use valid research would be a monitoring system with rigorous peer review or expert review procedures, sponsored but not necessarily operated by the government.

Making the Federal Bureaucracy More Responsive

Some local education officials felt that the Department was so far removed from the school districts that, as one phrased it, they looked at the Department as "the people that pass policies you have to comply with." One respondent resented the heavy demand for paper work in order to receive federal funding or to participate in federal programs and complained about the complicated and time-consuming paper work in proposal development, reporting, and compliance procedures. When asked "What can the U.S. Department of Education do to make education research more useful, more accessible, or relevant to your work?" one respondent retorted:

> "Nothing. It is not a matter of the federal government doing more; it's a matter of doing less, doing less with me in paperwork, reporting,

> meetings, and proposals. Just don't ask that many things from local people. That would help."

Another respondent advised:

> "The federal agency needs to be less compliance [oriented] and more user-friendly to schools."

Release Data in a Timely Manner and Link Them to Programs

One respondent observed that many federal research reports were not released in a timely manner, often with long delays. He said local people often needed national data to make immediate decisions that linked directly to districts' programs.

Releasing research reports together with new program announcements seemed desirable to local education officials. A district instruction director admitted that she would only search research information for specific projects, either a new federal grant or a state program. She suggested:

> "It would help a lot if you provide relevant research together with the program announcement, in the RFP. That can help us work more effectively. The National Reading Panel's report is a good example of such research dissemination. That covers a lot of literature and provides useful information for teaching reading in early childhood."

Providing Training in the Use of Research

According to two respondents, practitioners needed to know how to use research to make sound judgments about the validity and practical value of the available information. They recommended that the federal government provide training to practitioners on using existing research products effectively. A superintendent said:

> "It's crazy to say accessibility is a big problem. But it is important to teach people to use research for practical purposes. How to use different sources for different uses at the local level; that's still a problem."

In addition, respondents suggested that IES establish guidelines on research quality, techniques educators can use to identify and select quality research.

Major Policy Interests (Question 4)

Interview questions about respondents' major policy interests generated a wide array of issues that may or may not have overlapped with respondents' institutional priorities. To a great extent, these issues reflected local education officials' personal concerns, ranging from basic research themes such as children's self-teaching and learning styles to mundane school operational matters such as facilities management and classroom lighting.

Flexible Funding and Decision Making

Two local education officials were concerned about flexible funding and decentralized decision making. They wanted to see more studies on innovative formulas that allowed schools to re-allocate funding once funding was determined on the basis of student needs. A superintendent reasoned:

> "Funding from the federal government relative to money from state and local sources needs to be studied carefully to figure out how the money is spent. I want to know how federal dollars are actually utilized to help local children and families. How do the programs supported by the money work? Research in this regard exists, but far from enough, and I'd like to see more."

Making Necessary Choices

One respondent listed the following items in response to the question: facilities management, school size, organization of schools, education technology, online textbooks, and instructional resources. And then he asked:

> "How do we make choices that meet our needs? Foreign language classes in elementary school, maybe in second or third grade, is it feasible and does it make sense? Those are my personal concerns almost daily in work."

Career and Technology Instruction

Career and technology instruction concerned another respondent:

> "Lots of money is being spent. Proponents say it really works . . . out in the field, it doesn't seem to. There needs to be some attempt to reconcile this."

He would hope to have some conclusive finding on how career and technology education affects student life, from auto mechanics workshops to Microsoft certifications.

CHIEF STATE SCHOOL OFFICERS

Highest Priority Issues in Need of Further Research (Question 1)

The research issues of highest priority to the nine chief state school officers (CSSOs) interviewed included aspects of teacher preparation and quality (six respondents), effective interventions in schools and in school systems (four respondents), identifying effective approaches to mathematics teaching and learning (three respondents), and enhancing reading capabilities (two respondents).

Teacher-Related Issues

Six of the nine CSSOs (or their designees) cited teacher-related issues as a priority issue. Several noted teacher shortages in their states and its potential consequences. While one respondent cited "professional development in relation to student performance" as the "more basic" of his priorities, elements of teacher qualification, training, and development appeared as one of the two priority issues for the majority of CSSOs. (Three respondents did not want to rank their two highest priorities.) The following teacher-oriented research issues were addressed:

- A respondent from a state that had instituted a "multiple paths to success" program for teachers, as well as students, thought research on more effective ways to respond to the high percentage of teachers leaving the profession and the shortage of teachers in special areas was important. His state was exploring diverse teacher training and inservice professional development efforts.
- One CSSO was interested in the "success of teachers and achievement of students in relation to teacher qualification, specifically teacher certification." With his state experiencing difficulties in attracting competent teachers, he wanted to learn how current certification procedures affected teacher recruitment and performance.
- Other CSSOs cited teacher quality and preparation. One noted that, because of a shortage of good teachers in his state, most taught four to five classes on average. Another wondered what would happen as the United States moves to a more highly qualified workforce:

  > "Will we wind up with more shortages? What will be the impact on cost?"

Effective Interventions

Research on effective interventions in schools was a high priority for four respondents. One was interested in seeing the outcome of money spent on programs such as tutoring in relation to their outcomes, which he defined as student performance. A second, whose research priorities focused on effective curriculum (his highest priority) and effective school interventions, observed:

> "Under No Child Left Behind, we are under a mandate to have all children at a proficiency level in reading and math in 12 years. We don't have a

> good handle as to what interventions are effective (outside of some interventions in reading)."

Systemic Reform

One respondent commented that his highest research priority lay in "systemic reform based on standards and assessments." He called for research to show him the "validity and reliability of the assessment used to measure student learning and development." This was critical, he believed, in order to ensure public confidence in education reform.

One designee of a CSSO was concerned that "education evaluation be systemic." He called for research to look at school districts' structure, administration, and staff. He also called for more shared data both within and across states:

> "You need average states' performance and how things are going in local districts."

Important information in determining why programs succeeded or failed were such factors as districts' socioeconomic status, funding, teacher quality, and training.

Alternatives in Learning and Achievement

Alternative ways for student learning and achievement from pre-K through graduate education and beyond was a priority for one respondent. His state's "multiple paths to success" program sought to identify and employ new ideas and different programs that would enable students to complete school successfully. He specifically wondered what programs and strategies were effective in middle and high schools to enable students from very different backgrounds to learn and graduate.

Math Learning and Instruction

Three CSSOs underlined research in math learning and instruction as a priority. For one, "professional development strategies for teachers of mathematics" was critical, closely linked to his concern for research on "what practices increase math capability and the pedagogy of mathematics." "Best practices in math instruction" was the highest priority for another, and a third focused on "scientifically proven effective pedagogy, instruction, and curriculum programs" on research "in math learning and instruction." Echoing the views of a fellow respondent, this CSSO observed that "reading is already on the national agenda" and that "more attention should be paid to math instruction and achievement."

Reading Issues

Two CSSOs set reading-focused issues as their top research priorities. One sought research on best practices in reading instruction, while a second defined "early literacy, prekindergarten–third grade" as his top priority. He indicated that his state would be spending $10 million the first year on training reading coaches and other early-age reading efforts. His state "wanted to use research-based methods, and not a single method, to improve early reading."

Consideration of Standards

One respondent felt that the whole concept of "standards" needed additional consideration:

> "There isn't a good research base that supports the logic. Is improvement being driven by standards, or accountability, or assessment?"

Other High Priority Issues (Question 5)

The CSSOs interviewed called for a number of innovative approaches to conducting education research, expanding the issues considered by education researchers, and transforming the organization of consultations on education issues. Several respondents also called for more research on several enduring issues in education, including the following:

- Examine education issues through new conceptual lenses, such as those from economics;
- Conduct "more research on nontraditional methods of teaching," including smaller high schools, extending the senior year into junior college, attracting minorities to teach in high schools, and education for 3- to 4-year-olds.
- Tie brain research to learning theory and bring research findings into classroom teaching and learning or service programs;
- Study successful students rather than just focusing on disadvantaged students and students-at-risk, and take a "clearinghouse approach" to sharing information on successful students and schools;
- Hold more meetings in the regions, with fewer meetings in Washington, DC; widely sharing research information collected at the local level;
- Identify the best approaches to special education and ESL students;
- Involve parents, especially parents with low reading levels;
- Research effective instruction through the Internet and through live video and compare the difference in student performance; and
- Study student performance and accountability, in programs combing instructional improvement with data collection on student performance.

Use of Education Research Resources (Question 2)

One of the CSSOs interviewed reported reading research studies or reports of program evaluations "all of the time," and three reported reading these materials "most of the time." One respondent directly stated that he consulted research findings "only some of the time." Three CSSOs' responses to this question, however, were ambiguous:

> "I've covered a lot of bases."
>
> "I do what I can. We have a series of deputies and directors working on different areas using research in their work."
>
> "My staff scans research literature for me on a weekly basis. I read summaries and abstracts. It's part of my work to be familiar with what's going on in the research front."

It would probably be fair to say that these respondents consulted education-related research at least "some of the time."

One CSSO flatly stated that he "never, or hardly ever" read research reports, adding "I don't want to bury myself in research reports." He did modify his statement somewhat by saying that he might read something if it was "short." Later in the interview, however, this CSSO named specific publications he consulted. (See appendix table D-1 for the numbers of respondents who indicated different levels of frequency in reading research reports.)

Obtaining Research Information

Internet, ERIC, Regional Labs

Four of the CSSOs interviewed indicated they used the Internet and ERIC for research information. In addition to ERIC, one respondent specifically cited the Department of Education, and one mentioned "other clearinghouses." Three named regional educational laboratories as research sources. Two respondents specifically mentioned Mid-continent Research for Education and Learning (McREL), and one respondent spoke of the North Central Regional Educational Laboratory. One long-time CSSO remarked:

> "Regional labs are great sources, McREL in particular. I want [IES] to know that when [it's] making changes, keep in mind that the regional labs and ERIC work pretty well for teachers and local policy people."

Staff

Four CSSOs cited staff as research information sources—these individuals ranged from a research assistant "solely devoted to research and information services" to subject matter experts.

Publications

Education Week was identified by four CSSOs as a source of information. One reader used the publication as a "good start" for checking major issues; if he found something of interest, he went to the full report and related literature. One CSSO cited the publication *Education Next* and the newsletter *Gadfly* as research resources while another respondent cited "trade magazines" as a resource, without further specification.

Organizations and Colleagues

The Education Commission of the States and the Association for Supervision and Curriculum Development were organizations named by single individuals as research resources. Colleagues and fellow CSSOs were a source of research information for another.

One CSSO, who relied primarily on research summaries prepared by his staff, indicated what he did *not* do. He had "no time" to use the Internet. He did not often attend professional conferences as "many conferences are politically orchestrated" and not much value for learning new practices and programs.

Facilitating Use of Research

Effective Research Tools

Five of the nine respondents described the kinds of tools that would help them make more effective use of the enormous volume of education research. Two identified efforts to enhance communication among important education stakeholders as crucial and one called for increased dissemination through recognized and respected national associations of education policymakers. Specific suggestions included:

- Set up and maintain a Web page where people can look up everything on key issues;
- Provide a clearinghouse on key issues/research findings;
- Develop a comprehensive listing of research—a "Research Hotline"—released on an ongoing basis, highlighting all recent work in a short, simple manner;
- Provide executive summaries, condensed versions of research available to CSSOs and their staffs; and
- Organize categorical information with good search features to locate the right information quickly.

Clearinghouse of Meta-analyses

One respondent said it would be helpful to have a clearinghouse of meta-analyses to "assess research claims of the value of particular evaluations—an assessment of assessments." With so much information available, and an increasing number of studies not put through peer review processes, this respondent said "[the reader] doesn't know the validity" of research work or how to assess it.

Bringing Policymakers and Practitioners Closer

"Close communication with practitioners and policy people" was viewed by one CSSO as fundamental to encouraging more regular use of research. He noted his collaboration with American Indian educators in studying issues of Native American education and the needs of Native American children. Another pointed to the "widening distance" between the federal government and school districts and between state government and local schools. He called for "work on this disconnection" between schools and government to create a "climate where research is valued and understood by practitioners," noting that "teachers and principals are not well trained to follow up and understand research." He stated that research is "on the bottom of the agenda in most districts."

One of the interviewed CSSOs felt that the Council of Chief State School Officers and the Education Commission of the States would be valuable dissemination vehicles for education research information. Research findings could be e-mailed to these organizations and then circulated among their members. Regional educational laboratories, universities, as well as the Department, could also disseminate research findings.

Steps the Department Can Take to Improve Education Research (Question 3)

"Aggregating research and resources" from its unique national perspective was a function a number of CSSOs saw as a particularly valuable role for the Department. One CSSO articulated the thoughts of several others:

> "A lot of research that needs to be done would be impossible for a state to do. The Department is uniquely positioned to do strong, effective research."

A second important role suggested by respondents was giving a voice at the table to education practitioners, listening to their concerns as they presented them, and responding to these concerns.

Department as Information Broker

The CSSOs who were interviewed had a number of imaginative suggestions for enhancing the role of the Department as a pivotal information broker.

Department Providing Perspective

Concerned about topics in the field of education that "tend to have a very narrow focus," as well as a somewhat "incestuous" research community, one respondent saw a role for the Department in taking "a perspective that is not so wrapped up" in a particular topic. He identified the issues of gifted education, school choice, or alternative certification as cases in point, observing that there were "vested interests" in some of these subjects in colleges of education. He felt a valuable contribution by the Department would be "to look at different ways of looking at things and developing a research base."

Clearinghouse on Effective Practices

One CSSO suggested:

> "The Department could create a clearinghouse and disseminate information to the states [and] share use of effective practices."

Speaking of his own state, he observed:

> "We don't do a good job of knowing where a particular practice is used and its effectiveness. Further, we don't know what is going on in other states."

Another respondent noted that he and his fellow CSSOs "all shared the concern" that there be more sharing of information on best practices and strategies among states.

Partnerships for Research

One respondent suggested the Department establish partnerships with states and nonprofits to conduct research. He noted that the U.S. Department of Health and Human Services had successfully implemented partnerships with organizations such as the Manpower Development and Research Center, which provided technical support to both the federal government and the states. He also called on the Department to "get people from 10 states together to talk about what's going on in each state in assessment and research."

Another respondent called on the Department to "provide information on what the schools are doing and tie it to things we are required to do by federal programs."

Streamlining Research Reports

Respondents commented that research reports needed to be easy to read and understand. As CSSOs and their staffs need to access information outside of their offices quickly—literally anywhere—research reports cannot be too long and too complicated. One respondent suggested the Department could "help such a process."

Clearinghouse Services

Two CSSOs focused their remarks on clearinghouse services the Department could provide. One respondent called for either creating a clearinghouse on educational research directly through the Department or funding its creation somewhere else, such as the Council of Chief State School Officers, the Education Commission of the States, or the regional educational labs.

Providing Key Findings

One respondent specified several issues where he thought the Department could provide "key findings": dropouts, teacher recruitment, early childhood education, leadership training (how schools of education are preparing future leaders of K–12 education), and teacher preparation—encompassing such issues as nontraditional programs and alternative certification programs.

Importance of Helping End Users

Two CSSOs focused on the importance of communication as a critical element in fostering exchange of ideas and practices between the Department and the states. One observed the need to concentrate attention on the needs of "end users" and focus on questions from a practitioners' perspective. He called on the Department to "create an environment and mechanism to help end users," and to find ways to make them pay attention to research and to use research information. Another strongly underscored the need for the Department to have "close communication" with all groups, policymakers, teachers, researchers, and government agencies. "Let me and my staff participate in your meetings. . . . directly talk with you in your office," he asked. "Proximity and presence are important," he observed. Continuing, he lauded the work of the regional educational labs and centers ("these people really know the local schools and help") and was concerned that a national Department of Education body "may not be able to replace" these institutions.

Major Policy Interests (Question 4)

While the policy interests identified by respondents reflected the diverse education issues facing these CSSOs, issues of education quality (four respondents) and education financing (two respondents) were the most frequently noted. Two respondents noted other issues, and two took the opportunity to reiterate points they made earlier.

Education Quality

Policy interests focusing on educational quality touched on a variety of concerns. One CSSO formulated his policy interest at the broadest level: creating a more effective public education system. He went on to say that 21st century education "has more market-like characteristics and incentive structures." He thought that "90 percent of any quality problem is an issue of the system, not the people in it." Another CSSO's interest focused on "closing the achievement gap" among racial/ethnic groups and "raising achievement levels for all kids." A third CSSO was interested in improving student learning, the impact of early childhood opportunity on later success, and learning of "success stories," as well as issues of leadership and teacher quality.

Turning his attention to the quality of postsecondary education, one CSSO's policy interest was "how to ensure that all students are receiving an education at the level of quality of Tier I universities." He was concerned with preparing his state's students for a postcollege future in the workforce and wanted students who did not have access to Tier I universities to "be as competitive as they can be" with Tier I university students.

Finance

One respondent wondered how the federal government would redefine a funding role consistent with the programs under the new Elementary and Secondary Education Act (ESEA). State issues of adequacy and equity in funding were of interest to him, as well. Another respondent was concerned with the consequences of financial stringency on state education activities and wanted to know "how states are doing more with less, what legislatures are doing, and what is going on at the national level."

Research

Non-English-speaking Students

One CSSO was concerned with "English learners." Noting that a large percentage of the students in his state came from non-English-speaking backgrounds, he remarked that this area was a "prime" one for research on such questions as the appropriate language to use in educating these students, how using English or students' native languages would affect the learning of different student groups and how to assess student performance. "English-only versus bilingual education" was a critical issue in his state.

Comprehensive Research Resources

One respondent reiterated his concern with finding easy ways to access literature and research and called for "one stop shopping where you get comprehensive research resources." He observed that ERIC did not have the full text of all the documents it referenced and that ERIC users often had to pay to get the full text of certain documents. Another CSSO responded to the policy interest question by restating his support for regional educational laboratories and centers.

Usefulness of Research

Five of the nine respondents affirmed the usefulness of research in addressing their areas of policy interest or providing guidance. One observed, "I'd be in trouble without research information about schools and students' needs." Another, who consulted research findings only sparingly, remarked that research had helped him in "working through" his own ideas. A third respondent remarked that he had recently gone through research on early childhood reading and found that "there are many good ideas that can be applied in our programs." He also saw brain research as "another very valuable research area" giving "good answers to our questions."

Commenting on the quality of research on his major policy interests, one CSSO stated that "on a scale of 10 for quality," he would rank the research "between eight and nine." Another respondent felt despite the criticism of education research, "there are good research studies" and praised the research-based, very practical, and effective work of McREL.

Gaps in Research

Several CSSOs pointed out gaps in education research, with a particular focus on the applicability of research findings to education practice. Two specifically pointed to a dearth of research on rural education. One other concern, emerging here as in other points in the interviews, was the need for attentiveness to the education research needs of states and localities.

Addressing the gap between research and implementation, one respondent stated:

> "The problem for education research is that it is not well related to practice. Many good ideas are not implemented in classrooms. We need training for administrators and teachers to catch, understand, and use research findings."

Another respondent noted that he was "a strong believer in research" and tried hard to help his state agency gain and use research effectively. He noted:

> "Politics always gets involved in education research, which makes it hard to use the results. . . . We need to help people understand and value research. People may have different issues and concerns and may want to measure different outcomes. You can do that, but with some core outcomes measured for comparison."

New Approaches to Education Research

One CSSO felt that education research was "not really" useful to him and found that research results were infrequently translated into what-to-do kind of information. He found very little information out there that could make things happen. He commented on the "fairly quick" spread among physicians of new drugs, practices, and equipment as the result of efforts by a variety of institutions and organizations to help implement these innovations. He believed a similar approach was needed for education research, whereby teachers were helped to implement new ideas and practices so that they could "quickly put research into use to improve teaching and learning."

Another CSSO indicated:

> "[We] need a strong, factual, empirical basis to support policy approaches. Education [now] goes on what our gut tells us."

Regarding the usefulness of research for his policy interests, one respondent stated an outright, "No, if results mean anything." He also commented:

> "If you have agreement near the boundaries of the discussion, then you can reach a consensus. This is mostly an area of political difference."

He felt that research could be looked at cynically. Elaborating, he stated that a lot of policy was being driven by research that was being driven by a client. "There is a political bias built into the structure," he concluded.

Getting Research Up to Standards

One CSSO respondent commented, "Education research deserves being called lousy." Comparing this research to that in health and human services, he found education research to be inferior and researchers' training inadequate. There was "a long way to go" in getting education research up to the standards he sought with "strong methodology and scientific rigor." He called for "more random design and well controlled experimental studies." He saw too much anecdotal research and sought objectivity and neutrality in research, as well as more searching research questions:

> "Ask more *why* questions to deepen research."

Another CSSO cited "a lack of research, especially in reading and math instruction" and felt there "should be more research readily available, easy to understand, applicable to the classroom." This respondent was concerned, as well, over the quality of some of the scientifically-based programs that the Department had highlighted.

Rural Concerns

Addressing a perceived shortage of rurally-focused research, one CSSO felt that most education research "is designed for urban areas with little consideration of Native Americans" and was more focused on Blacks and Asians. Native American children, this respondent noted, are the lowest performing subgroup in Western states. Research was also lacking in the area of educational technology use in small, rural areas—for example, what are the best distance-learning approaches for rural areas? This respondent also saw an urban slant in textbook design, observing that "instructional materials don't have rivers and mountains and cows"—the daily reality of children in rural areas. A second CSSO observed that "rural education is rarely studied" and asked if there was a "national agenda to study and improve rural education?"

Research at State/Local Levels

Two respondents highlighted a recurring state concern for increased attention to research needs at the state and local levels. One CSSO, focusing on the activities of the Department, observed that when programs were earmarked and research funded "not much is communicated and agreed upon with state and local people." Another respondent commented:

> "From a state point of view, we need to communicate and compare with other states on many issues in public education."

Examples of areas in which he sought comparative data were in assessment, accountability, security, facility building, and leadership. He also called for more research in professional training, performance-based budgeting, and appraisal of employees and programs.

STATE HIGHER EDUCATION EXECUTIVE OFFICERS

Highest Priority Issues in Need of Further Research (Question 1)

Of the 10 state higher education executive officers (SHEEOs) interviewed, half of them cited issues focused on student retention in the higher education system. Tied to this were questions of student achievement and the performance gap among students of different backgrounds (two respondents). Another significant area of attention lay in the financing of higher education (four respondents). Their concerns lay in the impact of increased tuition costs on lower income students. One SHEEO was specially interested in strategies that states and the federal government could develop in assuring higher education affordability.

Three SHEEOs addressed the issue of developing indicators or measures of the performance of institutions of higher education. The changing nature of the postsecondary student body underlay the research concerns of many of the SHEEOs regarding student retention. This was directly referenced by three SHEEOs in their calls for research on nontraditional students and distance education programs, research on diversifying postsecondary education faculty, and research on different pathways to enter teaching careers at the K–12 level.

For a number of respondents, their two highest priority research areas were directly linked and they declined to designate one issue as ranking higher than another. For those who were willing to rank their priorities, fiscal issues and student retention/student success had equal numbers of adherents, three each.

Making Use of Research

Several SHEEOs expressed their research concerns at a broad conceptual level. One called for "research on research." He observed that research studies indeed exist on "what makes for effective schools," but this information had not been used by policymakers:

> "Why doesn't all this research get used to determine policy?"

He also sought research in the broad area of performance indicators. Directing this interest "at any level of education," he wanted studies on the development of performance indicators, how they were being used, how they worked, and "determining where the most effective performance indicators are."

Increasing Success Rates

One SHEEO asked:

> "What do we need to do to greatly increase the rate of success in all levels of education for all our people?"

He noted that his state was concerned with closing the gap in higher education with attention focused on issues of participation, success, quality, and research.

Another SHEEO respondent, whose research priority lay in "improving student achievement and how to get there," also wondered:

> "Why hasn't educational reform produced increased student achievement?"

He and his state colleagues were concerned with the connections between student reading success in early grades and increasing the number of high school graduates, and getting people into the workforce and through some form of postsecondary education. Another sought "measures of quality in higher education." He called for research to identify more and better measures of the quality of learning. For legislators in his state, "traditional" indicators such as employment after graduation, income, and job status were unsatisfactory measures.

Student Retention Research

One SHEEO asked, "How effective is our student retention program?" He wanted "more research" to tell him "how to improve student retention" and how current instructional models could be improved to do that. A second respondent, concerned with retention and completion issues, felt that "student-level information" was badly needed and that aggregated data were no longer sufficient. She commented that IES had institution-level data and the states had individual-level data, so collaboration between states and the federal level was critical:

> "Only with individual-level data can we learn how students change, move, complete, or dropout from colleges."

New Approaches in Higher Education

Another respondent was concerned with closing the performance gap in higher education among diverse racial/ethnic groups and income levels:

> "We see kids come into colleges with similar levels of performance, but 4 years later, some graduate, and some do not."

He wanted to see research on "how we can help low-income and minority students achieve at a high level and complete college."

Demographic Research

Changes in the demography of student populations determined the research priorities of two SHEEOs. Observing the "drastic increase of a new ethnic population" in his state and nationwide, the first felt that "a key to helping minority kids enroll and complete higher education is to have diverse faculty in our institutions." Since legal problems could result from such a strategy, he advocated studies to indicate "some feasible approach" to the issue.

The second SHEEO noted that the number of "nontraditional students" was "rapidly expanding" and their needs and approach toward education were often "different from those of traditional college students." She felt the "old model doesn't fit" and observed that many of the nontraditional students were taking noncredit courses at the postsecondary level and preferred distance learning. She called for national data on nontraditional students and distance education programs:

> "We need new knowledge about this population and new ways to serve them with distance learning programs."

Nontraditional Pathways to Teaching

Nontraditional pathways to teaching were the focus of another respondent. He noted the "very serious shortage of teachers" in his state and sought new strategies to attract students into school teaching careers:

> "We are interested in seeing what research can say about nontraditional pathways."

Retention and Completion Research

One SHEEO called for research on the reliability of the student completion rate formula for higher education and cohort tracking for completion. Another was concerned with retention in both community colleges and in 4-year colleges. Retention was linked for him, as well, to the issue of student transfers from community colleges to 4-year institutions:

> "It appears that a large number of community college attendees are not prepared to do college work and do not have the ability to do it."

He believed "there must be something else that is needed," as his state spent a lot of time and energy enabling students to transfer from community colleges to 4-year schools.

Financial Issues

Focusing on fiscal issues in education, one SHEEO's research priority lay in determining:

> "Are we funding things appropriately; are we getting the most for the buck?"

Another asked:

> "What are really reliable fiscal indicators of school health, well-being, and cost-effective uses of resources? There is really no one place that gives you a sense of what the most salient fiscal indicators are."

Her state had looked at data from the National Association of College and Business Officers, but found nothing definitive there.

Affordability and Access to Higher Education

The question of affordability and access to higher education was a concern of another SHEEO. He noted that his state's budget had declined by more than 10 percent, but the number of people seeking a college education had increased. He observed that people coming from outside his state were an important source of professional skills:

> "We are not doing very well in providing college education to people in the state."

A fellow SHEEO cited the concern by many in the SHEEO community regarding the affordability of higher education. Their discussions focused on defining the roles that states and the federal government could assume in this area. There was no "consensus as to what to do about the problem." He stated that with the current rates of increase in college costs:

> "We are stripping low-income families of the ability to send their kids to college."

He called for studies on strategies for state and federal collaboration on this issue.

Questioning the effectiveness of higher education financial aid programs in helping needy students complete higher education, one SHEEO commented:

> "We know we need specific goals and a continuing monitoring mechanism."

He observed that student debt default is very high and many students would never graduate from college once they defaulted on a student loan:

> "We need accurate information and effective ways to address the problem."

Other High Priority Issues (Question 5)

In addition to elaborating on their original research priority areas, several SHEEOs set out a number of new issues:

- How students and their families perceive affordability, select a particular college, and make payments;
- Immigrant attitudes toward and understanding of higher education;
- The world of work from the perspective of student preparation to that of broader state and national economic development;
- Vocational education;
- The state of science and technology education;
- The success of high school assessment tests and the SAT/ACT in predicting college success;
- The cultural role that education plays from birth to fourth grade; and
- Character education.

One respondent expressed a general query: "Are we doing all we can be doing to improve educational capability?"

Finally, one respondent asked for "more surveys, like this one, to get peoples' input when you make changes."

Use of Education Research Resources (Question 2)

All of the SHEEOs in the sample read research studies or reports of evaluations of the programs in which they had an interest. Three of the respondents indicated that they read such studies or reports "only some of the time," two said that they read these materials "most of the time," and three indicated that they "just about always" read studies or reports. The two remaining respondents indicated that they read summaries of research reports prepared by staff—one emphasized that he did a "selective" reading of these summaries, particularly in his areas of interest; the second did not indicate how frequently he read staff-prepared summaries. (See appendix table D-1 for the numbers of respondents who indicated different levels of frequency in reading research reports.)

Obtaining Research Information

The Internet was clearly a valuable tool for these education policymakers, with five SHEEOs specifically mentioning the Web as a research resource. The specific research resource most frequently mentioned was *The Chronicle of Higher Education*. Six of the 10 respondents mentioned the *Chronicle* by name.

With reference to Department research resources, four SHEEOs cited NCES as a resource, with two specifically mentioning IPEDS. ERIC was mentioned by four respondents, but it was generally rather far down the list of sources consulted.

Organizations Cited

Regional or national organizations focusing on higher education issues were an important source of research information for a number of SHEEOs:

- The Western Interstate Commission for Higher Education (WICHE) (three respondents);
- Southern Regional Education Board (SREB) (two respondents);
- SHEEOs' own national association (two respondents);
- Education Commission of the States (two respondents);
- National Governors Association (one respondent);
- College Board (one respondent); and
- American Association of Community Colleges (one respondent).

An education think tank, the National Center for Public Policy and Higher Education, and a foundation, the Miliken Foundation, were also cited.

Facilitating Use of Research

Good Web Site Design

Underlining the importance of the Internet, SHEEOs cited the importance of good Web site design more frequently than any other feature that would make it easier for them to use research information on a regular basis. Web design issues noted included:

- Ease of use;
- User-friendly index systems;
- Information easily accessed by topical areas; and
- A comprehensive clearinghouse providing links to educational material, indexed by subject matter.

Comprehensive Clearinghouse

Describing the Department Web site as "sometimes difficult to navigate," one SHEEO called for "a centralized information Web site set up by topical areas that would be easier to navigate." This was echoed by a fellow SHEEO who asked for "a comprehensive clearinghouse that maintains links to relevant educational material, indexed by subject matter."

Another respondent spoke of the "luxury" it would be to "assign crackerjack professionals" to nothing but identifying research that was credible and relevant.

Up-to-date Information

Two SHEEO respondents called for more up-to-date information—one of the respondents specifically calling for an updated, simplified IPEDS. Another observed, "Education research must be constantly updated." He felt that "all topics in education"—

specifically mentioning early childhood education, reading, and postsecondary completion—need data collection on a regular basis: "You don't want dated and sporadic information."

Commenting on the difficulty of retrieving tuition studies across states from the Department Web site, one SHEEO observed that the *Chronicle of Higher Education* did a better job of using current data than did IES. "We are in a world where things change rapidly," he said, and the 4-year-old data provided by the Department were not very helpful.

Access to Original Data or Full Texts of Research Reports

Access to original data or access to the full text of a research report was of importance to two respondents. One SHEEO stated:

> "Research is always available, but data are not. It is important to have access to public data. We want to do our own analysis."

Another called for "more national data" to supplement state data:

> "We want to know where we are and where we should do more and spend more, relative to other states and the nation. We now have piecemeal data on institutions, we need to integrate this data with the national data."

Need for Summaries and Short Reports

One SHEEO commented, "Executive summaries are wonderful." Size is critical, he noted, calling for short reports and 2- to 3-page summaries. "I just cannot do lots of reading in my office," he said. For him, in-depth reading comes only at home and is linked to his programs and interests.

Steps the Department Can Take to Improve Education Research (Question 3)

Wider Array, Broader Range of Data

Providing a wider array of data and presenting a broader range of issues are steps seven of the 10 SHEEO respondents thought the Department could take to make education research more useful, accessible, or relevant. Three of this group called for more state-level data: they particularly needed comparative state data on such issues as graduation rates, tuition fees, programs, and faculty. There was interest, as well, in multi-year data. Others called for information on the following subjects: inclusion of data within IPEDS on private occupational schools; best practices in performance outputs; and providing a clearinghouse for sites that have research capabilities. One SHEEO asked that "data be made widely available for all institutions and higher education agencies."

Design issues concerning the Department's Web site were raised by two SHEEOs who wanted such features as a good user-friendly index, clear tabs, and buttons. Others called for more updated information on the Department Web site and links to original sources from summaries of research reports. Another voiced concern over the politicization of educational research and indicated that he would "like to see more work reviewed and monitored by external committees."

Information on Private Occupational Schools

One SHEEO related her call for IPEDS data on private occupational schools to the increase in the numbers of nontraditional students, who tended to go to these schools (e.g., schools providing training in information technology). States needed data that "accurately describe nontraditional students and the processes they go through in institutions in comparison to traditional college students." She called for research on standards, consistent definition of programs, educational levels, and costs at the private occupational schools. Performance and accountability measures were needed, as well, "to see if our state follows or diverges from the national trend in operation and outcomes."

State-specific Data

A respondent called for "easier access to state-specific data," recommending that the Department Web site be "more aligned to specific topics rather than the hodge podge it is." Another called for the wide availability of data for all institutions and higher education agencies. His state needed to "validate data" and do its own analysis on different issues: "We want to look at the changes across years and states."

Facilitating Research Projects

One SHEEO felt things had "gotten worse" in the last 2 years and that the Office of Management and Budget was a "big hassle" to go through for research projects, badly slowing down important work. He felt that OMB had "over-controlled research programs" and that they were "playing politics." He called for external committees to assure good research, as committee members were "more objective and able to give a rational assessment" of the research before them.

Major Policy Interests (Question 4)

Financing Higher Education

Four SHEEOs indicated their major policy interests concerned varied aspects of financing of higher education—including issues of financial modeling and the worth and costs of college education for both government and families; financing of higher education linked to performance measures; and the demand elasticity of charges to students and enrollment completion in higher education.

Performance Measurement

Performance measurement was a policy interest for two SHEEOs: one was interested in "taking a fresh look at our institutional studies, measures of performance, and operation," while the other asked, "How do we know that what we are doing has a positive impact on the state?"

Link between Education and the World of Work

One SHEEO expressed concern over whether his state was "producing people for the jobs we need." The link between education and the world of work was a policy focus noted by two more SHEEOs—one of whom identified his interest as "seeing people well prepared to grow from level to level to a job."

Other Areas

Other areas of policy focus identified by individual SHEEOs included:

- Effective programs for helping students with physical or learning disabilities to learn and graduate from college;
- The transition from 2- to 4-year colleges;
- Developing a public agenda for education and seeing that it was acted upon;
- The amount of education necessary for both individuals and society to move forward;
- Lack of compliance with public policy; and
- Academic freedom.

In addressing the question of research usefulness, availability, and quality in relation to their major policy interests, SHEEOs cited bias in research, concerns regarding research quality, gaps in research, the applicability of research to practice, and real world implementation.

Quality of Research

With reference to research quality, this group raised a number of issues. One SHEEO, observing that the quality of some research reports was "pretty bad," proposed that "research should be juried—reviewed extensively before release." He felt that external review panels could be very helpful in assuring quality and monitoring research operations. Others were concerned about the reliability of research findings and their scientific value. One observed that a lot of research could be found in the area of educational improvement:

> ". . . but is it relevant . . . was the design of it any good whatsoever? Because someone says we have a control group doesn't mean that the research is good."

Noting "inconsistent" research evidence on key education issues, one SHEEO called for "integrative" research that combined and reconciled existing research evidence and indicated that this was now more important than research on specific topics. Another observed:

> "The best way to improve the quality of the information is to use it."

Gaps in Education Research

Among the gaps in education research noted by the SHEEOs were studies on indicators that work in tracing the impact of education on economic development. They also saw the need for research on "true value added outcomes" of higher education—the degree of knowledge gained by students upon completion of college as compared to their knowledge level upon entering college. Other areas where SHEEOs identified lack of research were in the transition from 2- to 4-year colleges, the skill sets that an individual needs to succeed in the workplace, and what business requires in graduates to ensure their success. One SHEEO called for more sharing of research information across states and noted that the federal government could be helpful in this area.

Research Bias

Three SHEEOs spoke to the issue of research bias:

> "There are always group interests and political agendas behind the issues, but we need to reduce partisanship in research. Even studies conducted by professional education organizations have bias."
>
> "You need to know the background of the studies, the organizations that supported the studies, and the researchers so that you can be aware of possible ideological bias or special interests."
>
> "Education becomes the political football for anyone running for governor or senator and gets jerked around every 2 years."

STATE LEGISLATORS

Highest Priority Issues In Need of Further Research (Question 1)

The two highest priority areas of concern of the two state legislators interviewed were financing K–12 public education and the connection between teacher training and student achievement.

"There is simply not enough money" to pay for the demands placed on state and local education agencies by the No Child Left Behind legislation, one legislator stated. "You need to do a study of the actual costs" of implementing this legislation.

The connection between a teacher's education—both the initial degree and continuing education—and improvement in student academic improvement was the focus of the second state legislator's attention:

> "Does National Board Certification improve classroom instruction?"

The connection between class size and learning, particularly for students from poor or minority families, was also of concern to one legislator who observed:

> "Some kind of conclusive report by the federal government may be needed to settle this issue."

Other High Priority Issues (Question 5)

Financing school programs and their connection with educational outcomes was again the focus of the two state legislators. Their issues included:

- Produce federal templates, guidelines, or benchmarks that linked to program performance or budgets and funding to help states determine the effectiveness of state programs to help kids, particularly "poor kids," learn;
- Study the financial connections between education expenditures and the academic results sought; and
- Measure the impact of teacher salary increases on student achievement.

Use of Education Research Resources (Question 2)

One state legislator read research studies or reports "only some of the time" and the other read them "fairly often." (See appendix table D-1 for the numbers of respondents who indicated different levels of frequency in reading research reports.)

Obtaining Research Information

Both legislators used research resources available to them through their involvement in the work of state legislatures. One indicated that the legislative library of the state legislature was a source of research information. The other cited the research help provided by the research staff of the National Conference of State Legislatures as a valuable resource. Other resources used by the legislators included: attending conferences (this opportunity was diminishing with state budget cuts), Internet search capabilities, and Internet forums. One legislator noted the help of a research assistant in obtaining research information. The second legislator discussed the initiative taken by a school of education within the state's public university system to compile and distribute a brief monthly overview on education research issues to education policymakers. This was particularly valuable as it was "relevant."

Facilitating Use of Research

For both legislators, information overload was an ongoing problem. Both sought information that could be easily accessed. One observed, "Any research document with more than five bullets is hard to go through." This respondent added that there was "no way" for legislators to read through documents with more than 40 pages. The second legislator did not want "to be bombarded" with research reports and called for "more of a selective process," with synopses of information.

Steps the Department Can Take to Improve Education Research (Question 3)

Both legislators called for easily accessible brief summaries of education research. In addition, one legislator called for "no bias" in the reports made available.

Major Policy Interests (Question 4)

One respondent's interest lay in how to have the state's "severely underfunded" budget meet the minimum quality standard set out by the state itself. The second legislator's policy interests focused on teacher performance and incentives to bring out higher quality performance. This legislator specifically called for improving teaching performance so that good curriculum and high standards would be taught to children, as well as studying the effect of different compensation systems for teachers (systems linked to teachers' performance in the classroom). A final concern was "trying to make sure that public education is focusing on educating children and not so much on [teachers'] self interest.

One legislator expressed concern with political bias and personal interest in "much of education research," and that even Department reports were sometimes biased by the political agenda of the administration then in power.

GOVERNORS' EDUCATION POLICY ADVISORS

Highest Priority Issues in Need of Further Research (Question 1)

All four of the governors' education policy advisors (GEPAs) interviewed cited issues relating to teacher quality as a high priority (and the highest priority for two respondents). Accountability and assessment concerns were of highest priority to one respondent and a shared priority for another, with a third advisor designating "closing the achievement gap" as her top priority. Three of the respondents also cited issues of student evaluation and assessment as high priorities.

Teacher Issues

For one GEPA, studying "the knowledge and skill of the teacher" and assessing its effect on teacher performance was a critical research question. She noted that there were "such [high] expectations" for teachers, but insufficient research on the subject. A second noted there was " a lot of conflict" in the data regarding teacher quality. Another called on the federal government to study what he saw as "the failure of higher education," both to "attract and train talented young people to become our teachers" and to "provide sufficiently well trained teachers." This GEPA was also interested in determining the difference made on student learning by spending more money in such areas as "staffing, technology, and data collection." A fourth GEPA said her state focused on teacher quality issues, with significant activity in the area of teacher training. She observed that it was not enough just to recruit new teachers: "You need to dig deeper."

Testing and Accountability

Referencing the requirements of the No Child Left Behind legislation for assessment of student progress, two GEPAs sought research on testing and accountability. One GEPA asked:

> "Would the existing tests really help; do they really help improve student achievement? There is no evidence that those tests actually help inform teachers and policymaking and then help improve learning and teaching."

Another respondent observed:

> "What kinds of evaluation of students can be indicative of their progress?"

Similarly, respondents wanted to know what reading programs "really work" for prekindergarten through third grade:

> "There are many reading programs available in the market, but confusion over what really works."

For one advisor, "finding effective approaches to closing the achievement gap between White and Black students" was the highest research priority. She asked:

> "What are effective approaches used within schools and state policies that are effective in closing this gap? Putting a high quality teacher [in the classroom] would close the gap."

Appropriate Curricula

One GEPA was interested in the alignment of the curricula of middle school, high school, and postsecondary education:

> "We're starting to find middle school students aren't getting appropriate curriculum for high school—even students in a college prep context—to go into postsecondary education."

Other High Priority Issues (Question 5)

Two of the respondents identified issues in professional development and school leadership as additional high priority areas:

- Public misunderstanding of the concept of teacher professional development;
- Specific needs of different student groups in professional training and professional development programs; and
- Preparation of school leaders and school leadership issues.

One respondent, echoing earlier observations by fellow advisors, noted:

> "There is research to show that if you do certain things, students will learn and schools will improve. Why is it that schools don't improve when we have all this information? What is the disconnect?"

Uses of Education Research Resources (Question 2)

The GEPAs interviewed were frequent readers of education research: three read research studies or reports on education issues "just about always," and the fourth consulted education research reports "at least three times a week." One advisor commented, "I always try to look at any research." Another observed that he looked at education research studies ". . . daily, though I don't have enough time. I'm very selective. I know what deserves my time and what does not." (See appendix table D-1 for the numbers of respondents who indicated different levels of frequency in reading research reports.)

Obtaining Research Information

The GEPA respondents shared many of the same strategies for obtaining research information, but with some individual differences related to their professional backgrounds and the conditions in their states. All of the advisors made use of the Internet, and most also consulted professional journals. ERIC was cited by one advisor, and another mentioned his "research staff" as a source of information. Two respondents cited *Education Week*, and one cited the education-focused *Phi Delta Kappan*. Journals in management and business education were consulted by a GEPA with a background in business and management, who also turned to *Business Week*, the *Wall Street Journal*, and electronic mailing lists for research information.

National and Regional Associations

Research information sources included national and regional associations with specific focus on education issues:

- Southern Regional Education Board (one respondent);

- Education Commission of the States (one respondent); and
- Education Trust (one respondent).

GEPAs also cited research-related assistance from colleagues in state government offices and elsewhere. Conferences were a particularly useful resource for one advisor, but conference costs had led this person to use teleconferences increasingly.

One respondent gained considerable research assistance through involvement in the state's special commission focusing on education issues. The commission had been looking at education research studies to see their applicability to the state's concerns and had invited out-of-state education researchers to address the commission. Further, this state had established a relationship with Harvard University researchers on literacy issues.

Facilitating Use of Research

One advisor with access to rich information on education research stated, "We're comfortable. There is plenty of research out there we can go to." Another expressed satisfaction with the What Works Clearinghouse role in identifying and selecting valuable information for teachers and administrators. He observed, "We need more information about teacher quality," based not only on teacher training and academic credentials, but also on "more background and assessment information."

Time-saving Initiatives

Two other advisors called for time-saving initiatives enabling them to access education research quickly and easily. One advisor called for having research available "online, and not having to go through a million gyrations to get it." This respondent found ERIC time-consuming, and the research information provided by the National Governors Association and the Education Commission of the States was "material available in the *Chronicle of Higher Education* and newspapers." This person wanted "something available online that is research-based."

The second respondent called for summaries of research, condensing, for example, the findings of a 200-page research report into one page:

> "Make it simple, clear, and short. If you give people more than 40 pages, no one will read it. Perhaps the Education Secretary should release a *Friday Letter* every week for practitioners, local policymakers, and administrators."

Such a publication should "use simple language" to tell people what was studied and what was found.

Steps the Department Can Take to Improve Education Research (Question 3)

The GEPA respondents had a number of suggestions for the Department. One advisor who advocated concise summaries of education research called on the Department to "send such research summaries to everyone"—including teachers and parents—through e-mail. These short summaries, he argued, "must make practical sense" so that they could be understood and used. A second called for "a Web site with specific key issues, topical areas, and information on where one can go for information on a specific topic such as closing the achievement gap . . . where one can go to access quality research."

A third advisor expressed frustration with conflicting research findings:

> "This week we are told this worked; next week we are told it did not. It confuses people, confuses teachers, and cannot help improve student achievement."

The fourth was concerned that the research put forward by the Department "*is* research, reliable and credible and not just the report of a study. . . . [It is] very important that the Department not put a spin on the research."

Major Policy Interests (Question 4)

The major policy interests of the respondents ranged from early childhood education through higher education. One GEPA whose responsibilities spanned the full spectrum was concerned with the "effectiveness of programs, what kinds of policies can we put in place to effect change?" A particular "passion" was "staff development"—how to better help people out in the field.

Another GEPA focused on early age learning opportunities for children, not just in the advisor's own state, but across the nation. Two other respondents were interested in the linkages among different components of the education system. One was interested in seeing "how you take data sources to create a comprehensive data system that can be used to follow students to the point where they get jobs." This advisor wanted to "look at students on a longitudinal basis . . . what is happening?" The second advisor, who termed himself "a higher education person," sought to "try to understand how the failure in higher education contributes to the problems in K–12."

Three of the four GEPA respondents found the education research they were using to be useful in providing guidance. One respondent was quite satisfied with the quality of research found through identifying "credible sources." One respondent, after answering "yes" to the question, noted that it was always necessary "to dig around" to get the right information.

Amount and Quality of Research

Another GEPA felt that there was "just not enough" education research in this respondent's area of interest, workforce development. Business literature in this area was more focused and "has more meat on it" than the education literature. This respondent observed that there was "a lot of meddling" in the education research literature and that there was "so much squishy research in education." The reasons for this might have to do "with the nature of the client," in that, "We get very scared when we think of messing with children and what they learn." Three GEPAs had specific critiques of the amount and quality of educational research, underlining such issues as conflicted or biased research findings, methodological directions in research, and bandwagon effects.

Problems in Existing Research

One respondent found "problems in the existing research" and used the research on charter schools as a case in point, observing that every school had something to say and that evidence supporting or opposing charter schools was not clear:

> "People have different interests in it and are biased in making judgment. Research should be conducted to clarify the issue."

A second respondent thought there was "too much research, not too little" and felt that quantitative research, especially, had been "overdone." This person called for more "implementary research"—research that "encourages people to use and implement established research ideas in their practice." This respondent proposed giving grants to people to implement programs in schools.

A third respondent felt:

> "We latch on to gurus in education, far more quickly than elsewhere. We go with the name and tout them all over the education media and don't deeply explore their concepts. We have touted experts who don't have expertise."

CONGRESSIONAL STAFF MEMBERS

Highest Priority Issues in Need of Further Research (Question 1)

Two top priorities of the six Congressional staff members interviewed were improving student achievement and teacher quality. Three staff members listed improving achievement for all students as their highest education research priority. Staffers specifically highlighted the need to improve student achievement in math, reading, and science, and one staffer called for a knowledge base of methods and materials that would enable America's educators to improve the outcome of schooling for all students. Research in the broad area of teacher preparation/training and teacher quality was the highest priority for three other Congressional committee staff. Two respondents focused on teacher education that would enable graduates to teach effectively amid education reform by offering the latest research in reading and math.

One Congressional staffer listed several other priority areas. These included early childhood education, which the respondent saw as the critical stage that would influence children's future learning and success in the workforce. His other priorities were special education and adult literacy practices to enable adults to function "in everyday life," access to higher education, and English-language learning.

Other High Priority Issues (Question 5)

Only four Congressional staffers responded to this question, the others indicating that their earlier remarks adequately defined their interests. Their issues included:

- Older students and dropouts in middle school and high school, especially in relation to high school functioning;
- English-language learning about non-native speakers—particularly what is effective in non-Hispanic learning;
- "What we know and don't know about teaching and learning";
- Research quality; and
- Cross-disciplinary syntheses of education research focused on their use in education policy and practice.

Use of Education Research Resources (Question 2)

Five of the six Congressional staff members read research studies or program evaluation reports either "most of the time" or "just about always," with only one staffer consulting such resources "only some of the time." (See appendix table D-1 for the numbers of respondents who indicated different levels of frequency in reading research reports.)

Obtaining Research Information

Congressional staffers often received research information sent directly to the offices of their House or Senate committee or their Congressional member. They received reports from what one staffer termed "public-private institutions," such as the Urban Institute and the Aspen Institute. Colleagues and journals, such as those published by the American Educational Research Association and Phi Delta Kappa were resources, as were think tanks and universities, including associations of universities such as the American Council on Education. Two staffers specifically cited the Department (one specifically mentioning the Department's Planning and Evaluation Service) as a research resource, although one staffer indicated that he "hardly ever" used ERIC as it was "very cumbersome" and "you never get what you want." This staffer distinguished between the needs of academics and professional researchers and people who "work on the Hill." He thought ERIC would be most useful for someone "in the field." Only one staff member specifically mentioned the Congressional Research Service as a research resource.

Facilitating Use of Research

Three respondents were satisfied with their ability to use research information, noting that "it's pretty easy to have the information needed" or that the information "wasn't hard to use."

Two staff members called for a database—each calling for somewhat different capacities. One staffer looked for an easily accessible database containing research summaries; the other, knowing that databases already existed, suggested "an improved online database of research reports, indicating the quality and scientifically-valid uses of such reports." One staffer, who already accessed a wide array of research sources, wanted to find out "about other sources"—getting away from her usual research sources.

Steps the Department Can Take to Improve Education Research (Question 3)

Summaries and syntheses of information were important to these Congressional staff respondents, enabling them to have a good overview of important research findings without having to sift through a great deal of information. Four of the six respondents specifically called for the Department to provide this service. The nature of the summaries called for varied somewhat, including the following elements:

- Synthesizing a large body of work in one topic;
- Distilling education research by indicating the top five research projects and the top five conclusions;
- Inducing the "best, most disinterested cognitive scientists to synthesize what is dependably known about learning" in a form that can have direct practical application to schools, and making it available to the public in an easily accessible Internet database; and
- Developing research syntheses that "work out" the contradictory findings in the research literature and providing more background information to enhance readers' understanding.

Several of the staff interviewed were particularly concerned with ensuring that research findings were applied and used. There was interest, as well, in having the Department facilitate the flow of relevant research findings to Congressional staff, with one staffer calling on the Department to "convene Hill staff to get them up to speed on a topic on which there is significant legislative activity."

One staffer paid particular attention to the Department's structure and funding of educational research. She suggested that the Department put a higher priority on education research and "spend energy and money attracting the best researchers around, creating a higher profile for [IES]." She further called for the Department to "develop a long-term research agenda such as that of the National Institutes of Health" and work on "long-term research projects that are truly meaningful."

Major Policy Interests (Question 4)

For a number of respondents, their major policy interests were those of the committee for which they worked or the legislator who employed them. Hence, higher education was a policy interest of three respondents and job training/workforce development was a policy interest cited by two staffers. Teacher quality was a policy interest also cited by two staffers. Research focusing on "why poor kids can't get what they need" was a staffer concern, as was English-language learning. One respondent defined encouraging rigorous review of education research as his major policy interest:

> "There needs to be an invigorated agency that is capable of carrying out a coordinated, focused agenda of high quality research, statistics, and evaluation, with as many random assignment experiments within the constraints of practicality and funding [as possible]."

Impact of Politics

Two staffers specifically spoke of the impact of politics on the use of education research. One staffer indicated that "to make a strong case, I need more than one body doing research: issues tend to be politicized." Another talked of "popcorn research—you stick it in the microwave and it's ready. A lot of popcorn research is used by both parties." He further defined popcorn research as the research that is often served up by advocates for particular positions.

Defining Best Teaching Practices

One staffer, citing E. D. Hirsch's book, *The Schools We Need and Why We Don't Have Them,* stated that sufficient research now existed, so a strong consensus definition of best teaching practices in every critical field could be made. The staffer cited a number of these best practices agreed upon by a number of national associations and observed:

> "The findings of research emphatically do not accord with the reforms currently being recommended by the education community. These practices are widely used in virtually every public school in America, all without valid, evidence-based research to back them up."

Another observed that "random experiments need to be done in math instruction where there is a paucity of concrete evidence on best practices," comparing this to the significant volume of evidence on reading instruction.

Quality of Research

Nearly all of the Congressional staff members interviewed found the education research they were using to be of value, with several calling for more research. "A lot of research needs to be done to develop policy," noted one staffer. Another stated, "You have to filter" the research, and it is "not always a good match" for the questions asked. Another staffer said there appeared to be less research on higher education than on K–12 issues, but "what research there is regarding higher education seems to be better than the research regarding K–12." One staffer commented that finding a particularly innovative, imaginative research approach in one research study would inform how she viewed and approached the results of other studies.

EDUCATION ASSOCIATION EXECUTIVE DIRECTORS

Highest Priority Issues in Need of Further Research (Question 1)

The education association executive directors in the sample represented organizations whose concerns encompassed a broad range of education interests, from early childhood through adult and continuing education. Most respondents focused on research that would address their associations' specific interests and needs.

Student achievement and teacher recruitment, retention, and quality were high priority issues for five of the 10 respondents. The areas of student assessment and early childhood education were high priority research concerns for four people. Additional research priority areas included broad school system change, accessibility of alternatives to public schooling, higher education accountability, new directions in higher education, cognitive research, and limited-English proficiency.

Student Achievement Tests

Areas of research interest in the broad area of student achievement included the impact of poverty on achievement, furthering student achievement in reading, math, and science, and reducing the student achievement gap. "People know nothing about the implications of poverty on performance," one respondent said. "Some states do a good job on this," another noted, "but we need to know more about this."

Teacher Recruitment and Retention

Teacher recruitment and retention was a concern at both the early childhood and K-12 levels. One respondent stated, "There is a prolonged shortage of good teachers in both public and independent schools." She pointed to shortages of teachers in technology, foreign languages, and in rural areas and observed that the image of teachers and their rewards, as well as the nature of school financing, caused teaching to be a less attractive career choice. Another respondent called for understanding and developing a solution to an annual turnover rate of some 50 percent of the people who teach young children. A third respondent indicated that "the jury is still out" on the question of content versus pedagogy in education. His organization's membership "would say that teacher quality is a huge issue."

Student Assessment

On student assessment, one respondent would like to see research that would provide guidance in "gauging adequate yearly progress in students." She wanted to know specific aspects of instruction that resulted in optimal progress by students: findings that could be used to intervene in the process. Another respondent's interests focused on the impact of testing on student performance and on dropout rates and both the positive and negative long-term effects of testing.

Early Childhood Education

Early childhood education in the context of school readiness was another key research interest. A crucial research question in this area was "how to define quality in a caring and learning environment for young children." One respondent observed that "quality is more than curriculum" and the world of education "is community-based and quasi-experimental." He argued:

> "[The] education setting is a broad-based system and not a laboratory bench. In the need for experimental rigor, we are forgetting that children and communities are not hermetically sealed."

School System/District Performance

"Strategies that improve the academic performance of big city school systems" was the highest priority issue for one respondent. He observed that there was a fair amount of research on what it took to turn around individual schools, but there was no research at the district or school systems level on what it took to turn around an entire school district or system, particularly one with a high proportion of poor kids: "There is a huge research void." Continuing, he observed that there was almost nothing that said which school districts were doing a really good job, and indicated the difference between them and school districts doing a poor job.

Independent Schools

One respondent sought research which would inform her association's membership on how to maintain independent curricula and manage school financing so that independent schools were accessible to diverse groups of children and promoted their academic success in these environments.

Higher Education

Two executive directors focused their research priorities specifically on issues in higher education. The first respondent addressed the issue of accountability in higher education. He felt that more sophisticated performance measures were needed for all higher education institutions and "studying and establishing standards for accountability" was key:

> "It was important to show students, communities, and states how their investments are used, the value of the service and the return."

A second area of research interest for him was in demonstrating the value of higher education to tax payers. There was a real need for indicators showing how undergraduate education performed and produced; no such measures were now available.

The second executive director looked for more research focused on distance education, especially for underserved and nontraditional students:

> "It is a big challenge to meet nontraditional students' needs, which are different from those of the conventional college student."

Internationalization of education was a second priority area for this respondent:

> "[This phenomenon] requires foreign language acquisition, global learning and study abroad. Today's global economy and work market demand new strategies and new programs."

Basic Cognitive Research

Basic cognitive research was a high priority for another respondent. She was interested in cognitive research related to children's learning in math and science and relevant to curriculum and instructional development. Research in this area could help teachers understand kids' learning processes and cognitive growth. Another director identified "better information about how to teach limited English proficiency students in bilingual or English as a Second Language programs" as an important research priority.

Other High Priority Issues (Question 5)

Other priorities proposed by executive officers included the following issues:

- Create an IES vision of what's best for kids, and see how people judge and contribute to school success;
- Closely communicate with the public and local communities and disseminate IES products through workshops and meetings;
- Identify "what excellent teaching looks like";
- Investigate the difference individual teachers make in school outcomes;
- Examine the transformation of the role of the headmaster in independent schools;
- Study the link between early childhood programs and later student achievement;
- Identify "what kids need to know and will be able to do when they graduate from high school";
- Study reading comprehension among high school students;
- Understand "how kids learn and how they test";
- Collect longitudinal data to address the student transfer issue at the postsecondary level;
- Standardize measures and definitions in tracking students;
- Re-examine definition of performance levels in NAEP;
- Continue experimental design-based studies but do not neglect other research approaches;
- Avoid bias in education research (two respondents).

Another director recalled that the Academy of Education had been serving as an advisory body to IES for a long time. This institution had given a great deal of effort and thought to education research and she did not want to see this relationship with IES "scratched."

Use of Education Research Resources (Question 2)

Of the 10 association executive directors (or their designees), three respondents read research reports studies or program evaluation reports "just about always," with four consulting such reports "most of the time," and three respondents "some of the time." (See appendix table D-1 for the numbers of respondents who indicated different levels of frequency in reading research reports.)

Obtaining Research Information

Half of the association executives indicated that professional journals were an important research resource for them, with one association executive specifically citing the materials produced by the Association for Supervision and Curriculum Development and the Consortium for Policy Research in Education. *Education Week* was cited by one respondent in this group. The Internet was a research source noted by four respondents, while ERIC was specifically mentioned by three. The Department was referenced by three respondents—one whose association worked with the Department requesting specific information on its area of special interest; one who looked at contractors' reports to the Department; and a third who cited NCES as a research resource.

Three of the directors interviewed identified their associations' staff members as research sources. Two respondents cited their own in-house research as a resource, one observing that his association published its own research journals. Regional educational laboratories were mentioned by two respondents, one specifically identifying the Northwest Regional Educational Laboratory. Colleagues and "sundry relationships with the research community" were resources, as well, for three respondents. Universities, think tanks, books, meeting proceedings, and materials sent to associations were all further research resources for these respondents.

One respondent obtained research information both from attending conferences of other organizations and working to organize her own association's national conference to share research and program information. Other approaches included consulting reports from foundations and philanthropies, and serving on advisory committees.

Facilitating Use of Research

The activities and services of the Department were the focus of most of the responses to this question, with six directors commenting on Department activities. Five of these discussed the Department's Web-based services, calling for better Web page design, enhanced usability features, and more timely research information, with three respondents specifically calling for improvements to the NCES Web site, one focusing on ERIC, and another respondent addressing the IES Web site.

Improving Web Services

Many directors supported Internet-based information services. Commenting specifically on IES, one respondent stated that it needed to improve its Web service, "providing better indexing, more complete and detailed categorization, and more useful search functions." He called for "more highlights and summaries of current research—perhaps released like a newsletter every month." Another executive director specifically suggested that NCES, which she thought had a lot of information on its Web site, "improve the index and search features."

One executive director liked to go to ERIC, but found it difficult to acquire full-length documents through the system. She observed that ERIC was only as good as the people sending it information. What would improve ERIC, she felt, would be enabling it to have "one-stop shopping for research information."

An intensive user of the Internet observed that many government agencies failed to classify their data, so he could not quickly locate material relevant to his work. "NCES has plenty of statistics, but needs to organize them well." He called for government agencies to contact people to understand what they want and, on the basis of the responses, improve online services.

Improving IES Services

One executive director felt IES should do much more reviewing of research in its publications. Another respondent, while praising NCES as providing "good survey data, statistics, and analyses," felt that "[IES] did not do a good job." She observed:

> "I'm not blaming [IES], itself. [IES] is a political football. It has very poor resources and staff, [and] is very much politicized and highly unstable."

Summaries vs. Full-text Reports

While some directors welcomed electronic summaries of research reports—one indicated that his association's members would read nothing but executive summaries—other executives indicated their interest in working with the full texts of research reports and making their own distillations of findings. One respondent stated that he hated to "have research being funneled by an administration"; another stated that he wanted to "delve into [a report] from start to finish." Several respondents suggested that executive summaries of research reports be directly linked to the full text of the research reports.

Releasing More Timely Data

One respondent thought the federal government's data were not timely, and were delayed for years. Citing the example of the NCES 1999–2000 *Schools and Staffing Survey*, he noted that the data were just released in 2002, a 2-year delay, which reduced the use of the data for decision-making.

Effect of "Marketing" Research

Concerned with the marketing culture affecting the dissemination of research material, one respondent called for "a fine definition of a well-researched study." She observed that universities and associations were linked, in one way or another, to organizations which marketed their materials. She underlined that she was not talking about deliberate bias, just that marketing enveloped the whole process. She felt IES could provide a "uniform code of instructional review." Everyone else, she said, had a stake in marketing: "None of us is exempt."

Steps the Department Can Take to Improve Education Research (Question 3)

The directors who were interviewed raised broad concerns regarding the nature of the research supported by the Department. Three respondents called on the Department to ask more basic, philosophical questions in framing its research agenda, set forth quality guidelines, and support basic scientific research. Three other respondents called for less esoteric research, with research studies more directly linked to policymaking. Several made concrete suggestions on areas for additional research, such as providing more state-

and local-level data and providing more finely disaggregated data on a variety of subjects.

Take Educators' Views in Research

One respondent called upon the Department to "look at things from an external viewpoint," taking the educators' position in framing research. He advised asking "fundamental questions" such as "Why should we improve adult literacy?" rather than posing only technical issues "such as the best way to improve adult literacy." A second respondent believed that some research might not be initially useful or initially relevant as basic scientific research was not meant to be useful to immediate practice:

> ". . . that kind of zeal about usefulness and relevance is actually making research political. . . . Usefulness and relevance all depend on people. What is useful for researchers is not necessarily useful for teachers. Different people have different needs."

She felt the Department had "no understanding of what's really out there in schools and classrooms."

One director called on the Department to make its research "more relevant, seeding and nurturing high quality research on young children." He felt there was a bias in the Department as to what constituted quality in research and a lack of agreement as to what was high quality research. Calling for more flexibility and understanding of different points of view, he underscored the need for openness:

> "When there is rigidity and dogmatism in embracing different models, you limit yourself; your peripheral vision is shut off."

Understand User Needs

Calling for a more pragmatic research perspective, one director observed there were studies that were too abstract, too general, and had limited value for policymaking. To link research to decision making, he suggested the Department do more surveys and focus groups with information users to understand their needs. Another executive saw the existing research as "too arcane and too narrow." This respondent added, "Nothing in the Department at all informs the practice of big city schools." There were program evaluations and more academically-based studies, but little was helpful to practitioners.

Provide State- and Local-level Data

One respondent remarked that "state data are always more useful than national data" and asked for more data to be made available at the state level. She observed that more local data were needed to compare schools districts with each other and with a national picture. She asked IES to explore coverage of local district data in its surveys and to release this data "as far as local agencies are willing." Other specific suggestions included a call for more specific research information by demographics, school systems, sectors, and types, and respondents mentioned that more data were needed on private school students, schools, programs, and performance.

Major Policy Interests (Question 4)

While these respondents articulated a broad range of policy interests, some issues were highlighted by several respondents: enhancing student achievement (three respondents), financing of schools and of early childhood education (three respondents), leadership development (two respondents), nurturing at K–12 and university levels (two respondents), school choice (two respondents), and access to education (both to independent schools and to postsecondary education—two respondents). Additional policy foci are indicated below. These respondents also had comments on the kinds of research they needed or found useful.

Specific Policy Interests

Student Achievement and Professional Leadership Issues

Addressing the issue of student achievement, one respondent described his interest as "what can drive" urban school systems forward in student achievement. Professional leadership issues were of concern to two respondents, one focusing on "what makes effective principals [and] superintendents," and the second "interested in how to provide opportunities for professional leadership training and growth in higher education." He was also concerned with how to build capacity in higher education and make it accessible to various groups. Other directors were concerned with policymaking related to achievement and reducing the student achievement gap.

Education Financing

Education financing was of particular importance to one respondent who queried:

> "How do you create a high quality system that is also affordable for parents. How do you cost out quality?"

He observed that the average cost of preschool was greater than attending a public university:

> "You sacrifice quality when parents need childcare. If they don't have childcare, they can't work."

Role of Principals

One respondent was particularly interested in the role of principals:

> "[There are] holes in our knowledge. There are many issues [unanswered] relating to the role of today's principals. What are the features of effective principals? How to select and attract quality principals, especially in poor performing schools? What should be covered in professional development for school administrators?"

This respondent added that research was needed to clarify the principal's leadership role in relation to student performance and classroom instruction. She stated that another important dimension where further research was needed was clarification of the principal's leadership role in relation to student performance, instructional leadership, and professional training vis-à-vis that of excellent and veteran teachers in the school.

Assessing Student Gains

One respondent found research useful to her in both "positive and negative ways." She was interested in seeing how studies were done and particularly wanted to learn about student gain—to make a judgment on what was effective in promoting student achievement. She felt that this was a "critical time" for assessing individual student gains:

> "We haven't had data to make definitive conclusions regarding student gains on an annual basis . . .states haven't had the data until recently."

She felt that existing data was based on laws of averages and was "a waste to look at." What was important to her was to "get down to individual student data." She commented:

> "We've had a number of meetings; we need to get state superintendents to make the data [on individual student gain] available . . . along with data that correlates to individual teachers."

Privacy considerations, she noted, would hinder the release of such information.

"Lost Curriculum" Issues

One association executive director's interest lay in "the lost curriculum" which she defined as "the impact of standards-based curriculum on arts and foreign language programs, primarily; but also on social studies." With so much emphasis on math and reading, she observed, "kids are not getting a well-rounded education." She strongly believed that kids should graduate with "a rich education."

Other Interests

School reform, voucher programs, and charter schools were interesting to several respondents, with particular concerns about ensuring the institutional independence of independent schools and providing a model of diverse educational approaches for other school systems.

Many other policy interests were also mentioned, including: effective instruction and teacher quality, governance of schools, standards, and assessment; education for poor children; raising U.S. citizens' basic education levels; and providing opportunities for adults to acquire basic skills. Other concerns were special education for children with disabilities and the needs of limited English proficiency in children.

Kinds of Research Needed or Found Useful

More Specific Information

Respondents called for more detailed, updated information and much finer specificity of research findings for the subjects and groups of interest to them. Several noted areas where research studies did not seem to exist or described gaps in existing research, others indicated new models and perspectives in addressing education issues, and one underscored the need for assuring the integrity of education research.

> "The more specific information, the better for our use. Information should be provided for specific groups, purposes and schools."
>
> "Sometimes you see studies that are too generic, or that do not directly address practical issues and policies. . . . For example, research in student persistence is pretty good . . . but college transfer and student mobility is not well understood. Students change programs, institutions, and states.

> Little has been understood about the reasons, the processes, and the impacts of such changes."
> "When [education research] fails, that's because there's not enough comparative information for me to sort out differences. We need data for more population subgroups, data at different education levels, 2-year programs, undergraduate, graduate, and workforce training and performance. . . . Honest research and data are essential. That's the most important thing for government research. The integrity of research is fundamental to federally-supported research. I hope [IES] can keep its research that way."

Relevant Research

Underlining the centrality of research to her work, one respondent observed, "I cannot function without research . . . but that doesn't mean all research is good. There are good projects, for example, the Early Childhood Study conducted by NCES." She felt "case studies are not very useful to policymaking" and believed that "most researchers have no idea about how schools work." She thought education researchers did not understand the basics of school operation, school financing, how to measure per pupil expenditure, and student-teacher ratios.

Research Outside of the Field of Education

Another association executive did not find the research out of IES to be useful to him. He felt that "education research will have to get very creative" in order to address such issues as funding. He found some good research from foundations such as Pew, the Carnegie Foundation, the Packard Foundation, and the Foundation for Child Development. The quality of research, he felt "is very varied, a mixed bag" with disagreements over what was quality in research.

Two directors found research outside of the field of education highly useful. One cited research by the military and corporations, where he located information on issues of institution innovation and changes applicable to school system change, the other had used more business model research than education research on organizational and management issues. Citing the Baldridge quality criteria and Total Quality Management (TQM) as important tools, the latter asserted that business/management research based on results and on "what works/what doesn't" was applicable to education.

APPENDIX A
METHODOLOGY

The target population was policymakers working in various jurisdictions, educational levels, and geographic and demographic categories. To maximize the relevance of the policymakers' input, given the constraints of a limited project budget, IES decided on a purposive sample. In employing this approach, the task team worked to select the most influential policymaking entities while covering the U.S. public education systems, including different jurisdictions, educational levels, and regional and demographic characteristics.

Purposive sampling is not meant to produce quantitative information that represents the population through statistical estimation. The largely qualitative information collected from this purposive sample may nevertheless cover policymakers' perspectives with a reasonable depth and inclusiveness.

While comprehensive information about the policymaker population is not available, it is possible to group the policymaking agencies with approximate counts. The population covered by this project included the following groups:

- Superintendents and other local education officials;
- Chief state school officers (CSSOs);
- State higher education executive officers (SHEEOs);
- State legislators;
- Governors' educational policy advisors (GEPAs);
- Congressional staff members (including staff members of the Senate Committee on Health, Education, Labor, and Pensions and the House Committee on Education and the Workforce, and educational policy specialists on the staffs of members of those committees); and
- Education association executive directors.

The total population from which the sample was chosen was estimated to be approximately 24,872 policymakers at various levels (local, state, and national) and functions (executive, legislative, professional, and advisory). Appendix table A-1 presents the counts of people by the decision-making levels and functions, with corresponding sample sizes planned for the interview.

Table A-1.—Sampled groups of education policymakers

Stratum	Estimated number in universe	Selected number in sample
TOTAL	24,872	79
Superintendents and other local education officials	17,000	34
Chief state school officers (CSSOs)	51	10
State higher education executive officers (SHEEOs)	51	10
State legislators	7,403	2
Governors' education policy advisors (GEPAs)	51	5
Congressional staff members	*171	*8
Education association executive directors	245	10

* The estimated number of Congressional staff members included, for the Senate, the 52 staff members of the Committee on Health, Education, Labor, and Pensions and the education staff specialists for the 27 members of this committee, and, for the House of Representatives, the 49 staff members of the Committee on Education and the Workforce and the education staff specialists for the 21 members of this committee. The sample included 2 members of each of these four groups.

The purposive sampling process involved making judgments using different information sources for different groups of policymakers.

In selecting state-level policymakers (i.e., the CSSOs, SHEEOs, state legislators, and GEPAs), a number of issues were considered, including Census regions (Northeast, Midwest, South, and West), state population, and state academic performance levels. Policymakers from diverse educational perspectives were included in the sample: local elementary/secondary officials—the chief state school officers (CSSOs), postsecondary officials—the state higher education executive officers (SHEEOs), state legislators, and governors' educational policy advisors (GEPAs).

A total of 20 CSSOs and SHEEOs were selected from states with large (more than 10 million), medium (5–10 million), and small (5 million or less) populations across the four U.S. Census regions.

Two state legislators were chosen from the officers or committees of the National Conference of State Legislatures. They were the chair or one of the vice-chairs of the Assembly on State Issues (ASI), Education Committee, and the Assembly on Federal Issues (AFI), Education, Labor, and Workforce Development Committee. States that were already represented through CCSO, SHEEO, or GEPA were not selected from this group.

Five GEPAs were selected based on state population size and Census region. The group included two large states and three small states that were not selected for the chief state school officer or state higher education executive officer samples. Small states where the CSSO was also the GEPA were not included.

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The sample included four legislative assistants for education to selected members of Senate Committee on Health, Education, Labor, and Pensions and House Committee on Education and the Workforce. The senior majority and minority education policy specialist for both the Senate and House Committees were chosen, as well.

To represent policymakers in *entities other than state and federal governments*, a total of 20 executives from national education associations focused on diverse aspects of education policymaking were selected for interviews. The selection was made to include a wide array of operational features of the education enterprise nationwide, including administrative levels (school, district, and state); educational levels (K–12, community colleges, adult education, higher education); ownership or sector (public, private, state, city, county, and charter school); special populations served (African American, Hispanics); and varied decision making roles (professionals, school boards, trustees, and administrators). The selection of participants was informed by consultation with experts knowledgeable about the complexity of education decision making systems and processes.

As noted above, purposive sampling was the approach chosen in order to focus limited resources on gathering input from diverse groups of policymakers. In our judgment, the selected education policymakers typify the education policy community in opinions regarding education research. While the sample does not warrant statistical generalization of the findings to a national population, we believe the information collected nevertheless offers insights for IES to shape new research priorities.

Local- and state-level policymakers were selected so that states and localities were represented across key geographic and demographic categories, including: Census region, district urban-rural locale, district enrollment size, state percent of urban population, state population size, state math 4th grade achievement level, and within-state achievement level. Information sources used included the Census Bureau's 2002 population estimate, the Common Core of Data (CCD) on district enrollment and locale, the 2000 NAEP mathematics performance by states, and district average scores on state achievement or performance tests. See appendix tables A-2 and A-3 for a summary of characteristics of the selected districts and states.

For the 79 individuals selected in the sample, 71 interviews were completed, achieving a 90 percent response rate. See appendix table A-4 for a breakdown of the number of individuals in the sample and the number of respondents by the seven types of education policymakers interviewed.

Table A-2.—Numbers of sampled districts and states, by specified demographic and geographic characteristics

District characteristics[1]	No. of district policymakers 34	State characteristics	No. of state policymakers 27
Locale		**Urban population[2]**	
Large central city	8	More than 85 percent	7
Mid-size central city	[3]4	51–85 percent	[4]16
Urban fringe of large city	7	50 percent or less	4
Small town	5		
Rural, outside MSA	7	**Achievement[5]**	
Rural, inside MSA	3	At national average	[6]18
		Higher than average	4
		Lower than average	5
Region		**Region[7]**	
Midwest	11	Midwest	8
Northeast	9	Northeast	5
South	[8]8	South	9
West	6	West	5
Enrollment size		**Population size[9]**	
Large (>30,000)	10	Large (>10 million)	11
Medium (1,000–30,000)	15	Medium (5–10 million)	[10]8
Small (<1,000)	9	Small (< 5 million)	8

[1] NCES 2000 Common Core of Data: District Locator, see http://nces.ed.gov/ccd/districtsearch

[2] Percent of state population living in metropolitan areas, from table No. 30 in U.S. Bureau of the Census, *Statistical Abstract of the United States*, 2001.

[3] One district policymaker from a mid-size central city was replaced by a district policymaker from a large central city.

[4] One policymaker from a state with 51-85 percent urban population was replaced by a policymaker from a state with more than 85 percent urban population.

[5] NAEP Math 2000 4th grade, states compared with national average, see http://nces.ed.gov/nationsreportcard/mathematics/results/stateachieve-g4.asp

[6] One policymaker from a state with an achievement level at the national average was replaced by a policymaker from a state where the achievement level was higher than the national average.

[7] Census regions and divisions, see http://eire.census.gov/popest/geographic/estimatesgeography.php

[8] One policymaker from a district in the South was replaced by a policymaker from a district in the West.

[9] Census population estimates, July 1, 2001, see http//eire.census.gov/popest/data/states/populartables/table01.php (small: less than 5 million; medium: 5 million to 10 million; large: more than 10 million).

[10] One policymaker from a medium-sized state was replaced by a policymaker from a small-sized state.

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Table A-3.—Selected states, number of sampled individuals, and state characteristics

	Number of sampled individuals		State characteristics			
State	**State policymakers**	**District officials**	**Region[1]**	**Size[2]**	**Achievement[3]**	**Percent urban[4]**
TOTAL	27	34				
Ohio	1	3	Midwest	Large	Average	81
Illinois	2	3	Midwest	Large	Average	85
Indiana	1	3	Midwest	Medium	Higher	72
Michigan	1	0	Midwest	Medium	Average	82
Wisconsin	[5]1	0	Midwest	Medium	Average	68
North Dakota	1	2	Midwest	Small	Average	44
Minnesota	1	0	Midwest	Small	Higher	70
New York	1	3	Northeast	Large	Average	92
Pennsylvania	1	3	Northeast	Large	Average	85
Massachusetts	1	3	Northeast	Medium	Higher	96
New Jersey	1	0	Northeast	Medium	Average	100
Connecticut	1	0	Northeast	Small	Higher	96
Florida	1	0	South	Large	Average	93
Texas	[6]3	3	South	Large	Average	85
Georgia	0	3	South	Medium	Lower	69
North Carolina	1	0	South	Medium	Average	68
Virginia	1	0	South	Medium	Average	78
Alabama	1	0	South	Small	Lower	70
Kentucky	0	[7]1	South	Small	Lower	49
Louisiana	1	1	South	Small	Lower	75
Mississippi	1	0	South	Small	Lower	36
California	2	3	West	Large	Lower	97
Washington	1	0	West	Medium	Average	83
Wyoming	1	3	West	Small	Average	30
Idaho	1	0	West	Small	Average	39

[1] Census regions and divisions, see http://eire.census.gov/popest/geographic/estimatesgeography.php

[2] Census population estimates, July 1, 2001, see http//eire.census.gov/popest/data/states/populartables/table01.php (small: less than 5 million; medium: 5 million to 10 million; large: more than 10 million).

[3] NAEP Math 2000 4th grade, states compared with national average, see http://nces.ed.gov/nationsreportcard/mathematics/results/stateachieve-g4.asp

[4] Percent of state population living in metropolitan areas, from table No. 30 in U.S. Bureau of the Census, *Statistical Abstract of the United States,* 2001.

[5] The state policymaker from Wisconsin was replaced by a state policymaker from Minnesota.

[6] One of the Texas state policymakers was replaced by a state policymaker from Florida.

[7] The district official from Kentucky was replaced by a district official from New Mexico. New Mexico is a small size state in the South region, and in the lower achievement range; its population is 60 percent urban.

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Table A-4.—Number of sampled individuals and completed interviews, by policymaker group

Policymaker group	Number of sampled individuals	Number of completed interviews	Response rate (percent)
TOTAL	79	71	90
Superintendents and other local education officials	34	30	88
Chief state school officers (CSSOs)	10	9	90
State higher education executive officers (SHEEOs)	10	10	100
State legislators	2	2	100
Governors' education policy advisors (GEPAs)	5	4	80
Congressional staff members	8	6	75
Education association executive directors	10	10	100

Notes on Identifying and Categorizing Research Priority Issues

It was important in this project to identify and communicate accurately the most critical concerns of our respondents on their high priorities for research. We needed to categorize and consolidate the large amount of information gathered from interviews. After completing the interviews, we took a number of steps to analyze and represent the data. First, the two interviewers and a senior editor met to develop an approach to analyzing and presenting information. We decided to organize the report following the interview protocol and reached some consensus on basic categorization of research priority issues. The two interviewers would be jointly responsible for documenting the interviews, analyzing the information, and drafting the report. They divided the labor by subgroups of respondents, with one interviewer working on the local decision makers—the largest subgroup—and the other on the remaining respondents. The two interviewers systematically reviewed the responses across the subgroups of policymakers. Throughout the process, they maintained close communication and developed categories for research priority issues for presenting the diverse and spontaneous opinions documented in their notes. To ensure consistent priority issues—and to keep them in line with other parts of the report—they frequently shared and reviewed each other's drafts during the report writing process. However, no formal coding system was used to present the responses regarding priority issues.

APPENDIX B
INTERVIEW PROTOCOL

Introduction

Hello, this is ____________, calling on behalf of the U.S. Department of Education. The department would very much like to get the advice of <name of respondent> about education research priorities for the next few years. Is <he/she> available to speak to now for about 15 minutes?

Additional explanation

<If asked "What is this about?" or something similar>

The U.S. Department of Education is considering what areas of research to emphasize over the next few years. The department needs the views of <name of respondent> to make sure that the research it funds is responsive to the needs of education decision-makers.

Setting appointment

<If respondent not available immediately>

Could you put me on <Dr./Mr./Ms. last name of respondent>'s schedule for about 15 minutes later today or in the next day or two, or could you tell me a good time today or tomorrow to call back to speak to <him/her>?

<If not available in the next two days>

What is the earliest time you could put me on <Dr./Mr./Ms. last name of respondent>'s schedule for about 15 minutes or that I could call back and speak to <him/her>?

<Record appointment time and confirm or record call-back time>

Introduction to target respondent

<When target respondent is reached>

The Office of Educational Research and Improvement, or OERI, is trying to make federally-funded research more responsive to the needs of education decision-makers. To gain the perspectives of education decision-makers in this critical effort, OERI is directly contacting a small group of education policy leaders across the United States. We hope that you will be able to share with us, for no more than 15 minutes, some of your thoughts on priorities for educational research in the next few years. Your thoughts will assist OERI in determining its research and funding priorities.

Interview

1. What, in your opinion, are the two highest priority areas in which further research is most needed?

   (a) Why is this so?

   (b) *<Be sure we know what school level the respondent is addressing and provide the respondent the opportunity to think outside K–12. If this is not clear, add:>* And, when you describe these topics, what level of education are you mainly concerned with?

   (c) Of the priority areas you listed, which would you rank higher?

<If the respondent has difficulty coming up with research areas, suggest the following as illustrative:> student achievement, effective instructional practices, dropouts and college completion, teacher and school quality, school funding, and equal opportunities for all children

Now, I would like to ask you a couple of questions about your use of education research and how accessible that research is.

2. When looking for information on effective educational programs or practices, do you read research studies or reports of evaluations of the programs you are interested in (a) never, (b) only some of the time, (c) most of the time, or (d) just about always?

   <If the respondent indicates ***b, c, or d****, then ask questions (a) and (b) below, otherwise skip to question (b) below>*

   (a) When you have used research information, how have you obtained it? *<If the respondent needs to be prompted, the interviewer can say>* For example, from colleagues; newsletters or reports from professional associations; research reports and summaries available through journals, ERIC, ED Week or other print and online media?

   (b) What would make it easier for you to use research information on a regular basis?

3. What could the U.S. Department of Education do to make education research more useful, more accessible, or relevant to your work?

4. In terms of your own work in education, what are your major policy interests?

   (a) Has the research you've used been useful to you in addressing your specific areas of interest or providing fruitful guidance?

   (b) Could you tell me about your sense of the research you've used, both in terms of the amount of existing research and the quality of that research? *<Prompt for explanations. If respondent needs a prompt, add:>* Relevant factors might include coverage of the issue or area, number of studies available, their relevance to current practice, the strength of their methodology and evidence, ideological or issue biases, accuracy of reporting, extent of dissemination, and adequacy of funding?

5. Finally, on reflection, are there any other high priority issues, areas, or themes in American education in which you would like to see more, better, or a different type of research?

APPENDIX C
SAMPLE INTRODUCTORY LETTER

September 11, 2002

[Address]

Dear ... :

I am writing to ask you to participate in a survey on your education research interests, priorities for education research, and opinions about the current state of education research in those areas. The findings will help the Office of Educational Research and Improvement (OERI), U.S. Department of Education, to develop and promote research programs that meet the needs of the education community and those who help shape education issues.

The Department's Strategic Plan for 2002—2007 calls for increasing the relevance of education research to meet the needs of our customers. As part of this effort, OERI will periodically conduct fast-response surveys of education decision-makers to help determine the issues that concern them and about which they need information. To assess the state of education research in the U.S., the satisfaction levels of its consumers, and as an aid in developing OERI's priorities, we are asking a select group of education decision-makers to take part in a survey.

Over the next few weeks, Synectics for Management Decisions, a research firm under contract to OERI, will be calling you. I would greatly appreciate your taking about 15 to 20 minutes to talk to them. The findings will be compiled in a report to me. The report will not identify respondents. Synectics will not provide the notes of their conversations to my office. Since we have selected only 30 state-level policymakers, 29 Congressional staff members, and 20 directors of education associations, your participation is very important to ensure that the report is representative of the education leadership community.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is **1800-0011**. The time required to complete this information collection is estimated to average 20 minutes per response. **If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving the survey, please write to:** U.S. Department of Education, Washington, D.C. 20202-4651. **If you have comments or concerns regarding the status of your response to this survey, write directly to:** John Ralph, National Center for Education Statistics, U.S. Department of Education, 1990 K Street, NW, Room 9037, Washington, D.C. 20006.

Synectics' staff will be happy to answer any questions you might have about this activity when they call. If you have questions in advance, you may also contact Dr. Sameena

Salvucci at Synectics, who is coordinating the study, at 703.807.2309 or e-mail her at sams@smdi.com.

I am looking forward to hearing your views distilled in this report and sincerely hope that you will participate in this effort.

Sincerely,

Grover J. Whitehurst
Assistant Secretary of Education for
Educational Research and Improvement

APPENDIX D
COUNTS BY FREQUENCY OF READING RESEARCH REPORTS

Table D-1.—Counts by frequency of reading research reports

Stratum	Never	Only some of the time	Most of the time	Just about always	Total
TOTAL	2	20	20	29	71
Superintendents and other local education officials	1	5	8	16	**30**
CSSOs	1	4	2	2	**9**
SHEEOs	0	5	3	2	**10**
State legislators	0	2	0	0	**2**
Governors' education policy advisors	0	0	1	3	**4**
Congressional staff members	0	1	2	3	**6**
Education association executive directors	0	3	4	3	**10**

Note: Some respondents gave more detailed description of their level of research use than a simple response by the five categories; thus some of the counts of the frequency categories were based on derived information.

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Office of Educational Research and Improvement (OERI)
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Author(s): Gary Huang, Mindy, Reiser, Albert Parker, Judith Muniec, Sameena Salvucci	
Corporate Source: Synectics for Management Decisions, Inc.	Publication Date: Jan 2003

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